POSSIBLE SUBSTITUTION GUIDE

TYPE No.	POSSIBLE SUBSTITUTES		
AC105	AC128	2N2431	2SB220
AC106	AC153	2N311	2SB220
AC107	AC150	2N3323	2N406
AC107N	AC125	2N406	
AC108	AC163	2N506	MA1703
AC109	AC125	2N2429	MA1703
AC110	AC128	2N2429	MA1703
AC113	AC163	AC151	2N406
AC114	AC125	AC128	
AC115	AC128	AC160	AC125
AC116	AC151	2N610	2SB415
AC117	AC153	2N467	2SB415
AC118	AC153	AC193	AC180
AC119	AC153	AC193	AC117
AC120	AC124	2N2431	2SB222
AC121	AC117	2N2431	2SB415
AC122	MA1703	2N2429	2SB364
AC122r	AC125	OC304	2N1190
AC122g	AC125	OC304	2N1190
AC122v	OC3051	2N1190	AC151VII
AC122w	AC126	OC305	2N1190
AC122/30	ASY48	2N1190	2N527
AC123	ASY48	2N613	2SB56A
AC124	AC153	2N4106	2SB67
AC125	AC165	2N2429	2SB415
AC126	AC150	2N506	2SB415
AC127	AC186	2N2430	AC176
AC128	AC117	2N1377	2SB770
AC128K	OC308	2N4106	2SB415
AC129	OC58	2N3323	2SB168
AC130	AC176	AC127	2N2430
AC131	AC152	2N2431	2SB370A
AC131/30	AC153	SFT232	2N1926
AC132	AC152	2N1924	2SB364
AC134	OC71	2N406	AC173
AC135	AC125	2N408	AC151
AC136	AC135	2N109	2N217
AC137	AC151	AC171	2N2431
AC138	AC152	2N1156	2S684
AC138H	AC138	MA1703	2N2706
AC139	AC117	AC128	MA1703
AC141	AC175	2N647	2N2430
AC141B	AC141		
AC141H	AC141		
AC141K	AC141	AC187K	
AC142	AC117	2N217	2N2706
AC142K	2N1040	2N217	AC128
AC150	AC126	2N2429	2SB459
AC150g	AC107	OC306	2N2613
AC150gn	OC306	AC107	2N2613
AC151	AC126	2N2429	2SB459
AC151/4	AC125	OC304	AC192
AC151/5	AC125	OC304	AC192
AC151/6	AC125	OC304	AC192
AC151/7	AC126	OC3051	AC192
AC151R	MA1703	AC125	2N406
AC152	AC128	2N238	2SB415
AC153	AC117	2N467	2SB415
AC153K	MA1703	2N4106	2SB415
AC154	AC152	2N1924	AC128
AC155	AC125	OC304T	AC151
AC156	AC125	AC151	OC304
AC157	AC127	AC186	AC181
AC160	AC151	OC306	2N1191
AC160A	AC161	OC307	AC125

TYPE No.	POSSIBLE SUBSTITUTES		
AC160B	AC161	AC127	OC307
AC160g	OC306	AC191	2SB73
AC160r	OC306	AC191	2SB73
AC160v	AC191	AC161	2SV73
AC161	OC307	AC160	AC151
AC162	AC126	2N37	2SB219
AC163	AC128	2N2907	2SB459
AC164	AC108	MA1703	
AC165	AC125	AC222	AC151
AC166	AC128	AC131/30	2N4106
AC167	AC128	2N1189	2N4106
AC168	AC127	AC180	AC175K
AC169	2N2429	AC125	AC151
AC170	AC162	MA1703	2SB54
AC171	AC173	2SB439	AC126
AC172	AC127	AC163	AC181
AC173	AC128	2N1189	AC152
AC174	AC153	AC193	2N1926
AC175	AC127	2N2707	AC181
AC176	AC181	AC187	AC186
AC176K	AC176	AC186	AC181
AC176/01	AC176		
AC177	AC152	AC131	AC173
AC178	AC180	AC153	2SB370
AC179	AC180	AC176	AC194K
AC180	2N4106	MA1703	AC128
AC180K	AC188K	AC193K	AC117
AC181	AC176	AC194	2N1732
AC181K	AC187K	AC175	AC176K
AC182	AC128	ASY26	2N1371
AC183	AC127	AC194	2N2430
AC184	AC152	2N238	2SB415
AC185	AC127	AC186	2N2430
AC186	AC176	AC194	2N1732
AC187K	AC180	AC176K	
AC188	AC128	2N2706	
AC188K	AC153K	AC117	2SB370
AC191	AC150	AC161	2N2613
AC192	AC126	AC170	2SB219
AC193	AC153	AC128	2N1926
AC193K	AC117	2N467	2SB415
AC194	AC175	AC187K	2N2430
AC194K	AC176K	AC187K	AC175
ACY16	AC128K	ACY33	2N2801
ACY17	ASY48	ACY17	NKT237
ACY18	AC117	ACY18	NKT238
ACY19	AC153	ACY19	NKT239
ACY20	AC117	ACY20	NKT240
ACY21	AC123	ACY21	NKT241
ACY22	ACY16	ACY22	NKT242
ACY23	ASY80	2N2429	NKT225
ACY24	OC77	2N2801	NKT217
ACY27	OC70	2N1191	NKT225
ACY28	OC70	2N1192	NKT225
ACY29	OC70	2N1191	NKT225
ACY30	ASY27	2N1373	NKT227
ACY31	AC165	2N4106	2SB67
ACY32	ASY80	2N1191	NKT225
ACY33	AC117	2N2801	NKT211
ACY34	AC122	2N2429	2SB364
ACY35	AC155	2N1190	NKT225
ACY36	AC122	2N1190	NKT225
ACY38	ASY27	2N1373	NKT227
ACY39	ACZ10	2N2801	NKT243
ACY40	ACY23	2N1189	NKT244

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TYPE No.	POSSIBLE SUBSTITUTES		
ACY41	ACY23	2N1375	NKT245
ACY44	OC77	2N2801	NKT216
ACZ10	ASY48	2N2801	NKT211
AD103	AS133	ADZ11	2N1146
AD104	AUY21	ADZ12	2N146A
AD105	AUY22	2N1146B	SFT266
AD130	AD149	2N3615	2SB425
AD131	AD149	2N3615	2SB425
AD132	OC28	AD138/50	2SB424
AD133	AUY29	AD143	2N2869
AD134	ADZ11	2N1099	NKT402
AD135	ADZ12	2N1099	NKT403
AD136	AD160	2N1184	
AD138	AD133	OC28	2N1022A
AD138/50	AUY22	OC28	2N2870
AD139	AD148	AD262	2SB368
AD140	AD149	2N1022	2SB425
AD142	AUY29	OC28	2N174
AD143	AUY29	OC28	1N174
AD145	AUY30	AD138	2N2869
AD148	AD262	AD162	2N2835
AD148/5	AD262	AD162	2N2835
AD149	2N1022	2N3615	2N2869
AD149/5	2N1022	2N3615	2N2836
AD150	AD166	AD143	2N3614
AD150/4	AD143	2N3614	2N2869
AD150/5	AD143	2N3614	2N2869
AD152	AD156	AD263	2SB368
AD153	AD149	MPS2060	2N2870
AD155	AD162	AD262	2SB367
AD156	AD148	AD262	2N2835
AD157	AD161	AD165	2N2835
AD161	AD165	2N4077	
AD162	AD152	AD262	2SB367
AD163	ASZ18	AD142	2SB424
AD164	AD162	AD262	2SB367
AD165	AD161	2N4077	
AD166	AD149	AL103	2N2148
AD167	AD149	AL102	2N2147
AD169	AD162	AD152	2SB368
AD211	ADZ12	2N1100	
AD212	ADZ12	2N1100	
AD262	AD162	AD139	2SB368
AD263	ASZ17	AUY28	AUY21
ADY26	2N514	2N2636	ADZ25
ADY27	ADY22	2N2870	ASZ16
ADY28	ASZ15	AUY22	AUY28
ADY222	AUY22	ADZ11	2N3617
ADY223	ADZ12	2N3617	2N2879
ADY224	ADZ12	ADY24	2N3617
ADY225	AUY34	2N3618	NKT420
ADY228Y	AUY34	2N178	NKT451
ADY228X	AUY34	2N178	NKT451
ADY230	AD132	2N1100	CTP1500
ADY231	AD132	2N1100	CTP1500
ADY232	AD132	2N1100	CTP1500
ADZ11	AD103	AD133	2N1146
ADZ12	AD104	2N1146A	2N1146B
AF101	AF127	AF137	NKT603F
AF102	AF106	2N2494	2N3323
AF105	MM5000	2N344	2SA155
AF105a	AF126	AF166	2N2495
AF106	AN13	2SA230	2N3323
AF107	2N1141	AFY19	AF109R
AF108	2N1141	AFY19	AF109R

TYPE No.	POSSIBLE SUBSTITUTES		
AF109	AF180	AF190	2SA432
AF109R	AF180	AF190	2SA432
AF110	AF181	AF121	2N3075
AF111	AF127	AF171	2SB155
AF112	AF126	AF166	2SA156
AF113	AF125	AF168	2SB116
AF114	AF130	2N346	2SA116
AF115	AF135	2N1110	2SA156
AF116	AF132	2N641	2SA155
AF116N	AF202	2N4916	NKT613F
AF117	AF127	2N642	2SA155
AF117N	AF202	2N4916	NKT603F
AF118	2N2207	2SA76	SFT162
AF121	AF106	2N2495	2N3323
AF121S	AF202S	AF202L	2SA240
AF122	AN13	2N3323	2SA230
AF124	2N3323	2N346	2SA433
AF125	AF135	2N991	2SA433
AF126	AF136	2N641	2SA433
AF127	AF133	2N642	2SA240
AF129	AF124	2N4916	NKT613F
AF130	AF124	2N4916	NKT613F
AF131	AF125	2N2635	NKT677F
AF132	AF126	2N2273	NKT674F
AF133	AF127	2N2273	NKT674F
AF134	AF129	2N346	2SA116
AF135	AF125	2N1110	2SA156
AF136	AF125	2N4034	2SA156
AF137	AF127	2N642	2SA433
AF138	AF185	2N641	2SA155
AF139	2N3323		2N2244
AF142	AF129	2N4035	AF194
AF143	AF135	AF135	AF124
AF144	AF124	2N3323	AF127
AF146	AF135	AF127	AF135
AF147	AF126	AF136	AC127
AF148	AF127	AF137	2N4034
AF149	AF126	AF136	AF131
AF150	AF126	2N4034	AF127
AF164	2N3323	2N1177	2N3323
AF165	2N3323	2N1178	2N1179
AF166	AF132	2N1180	2N4034
AF168	AF126	2N2083	2N1183
AF169	2N3323	2N1631	2N4034
AF170	AM14	AF136	2N1635
AF171	AF126	2N4035	2N1425
AF172	AM12	2N1633	2SA432
AF178	AF106	2N2495	2SA432
AF179	AF180	2N2654	AF109
AF180	AF109	2N3074	AF133
AF181	AF110	2N3075	AF121
AF182	AF106	2N2273	NKT674F
AF183	AF106	2N2273	NKT613F
AF184	AF106	2N2273	NKT613F
AF185	AF106	AF121	2N2492
AF186	AF139	2N2244	2SA257
AF186G	2N1141		
AF186W	AF186		
AF187	2N3323	2N5044	2SA257
AF188	AF121	2N5044	AF133
AF189	AF124	2N2273	NKT613F
AF190	AF121	2N2273	NKT613F
AF192	AC130	AC190	AC127
AF193	AF127	2N3323	2N4034
AF194	AF124	2N2635	NKT674F

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POSSIBLE SUBSTITUTION GUIDE

TYPE No.	POSSIBLE SUBSTITUTES		
AF195	AF125	2N2635	NKT674F
AF196	AF126	2N2273	NKT677F
AF197	AF127	2N2273	NKT677F
AF198	AF127	2N2635	NKT674F
AF200	AF181	AF110	2SA240
AF201	AF106	2SA240	AF102
AF202	AF121	2SA240	AF202S
AF202L	AF202S	AF121S	2SA140
AF202S	AF121S	2SA240	AF202L
AF239	AF254	AF202	AF249S
AF239S	AF239	AF254	AF202
AF240	AF139	AF267	AF280
AF250	AF239	AF202	
AF251	AF239	AF239S	AF202
AF252	AF240	AF239	AF254
AF253	AF109R	AF139	2N2244
AF254	AF202	AF239	2SA240
AF256	AF106	GM0761	2SA230
AF267	AF239S	AF240	AF279
AF269	AF239S	AF254	
AF279	AF239S	AF179	AF267
AF280	AF257	AF239S	AF202
AFY10	AFY11	AFY19	AF121
AFY11	AFY19	AF121	2SA431
AFY12	AFY121	AF106	2SA431
AFY13	AF124	2N2635	NKT613F
AFY14	ASY27	SFT316K	2SA72
AFY15	AF136	2SA52	
AFY16	M9031	2N3323	
AFY18	AF240	AF139	AF267
AFY19	AFY10	AFY11	AFY18
AFY25	AFY24	2N3283	MM1139
AFY26	AFY18	2N3127	2N3324
AFY29	AF126	AF137	2N3323
AFY34	2N3307	2N4952	2N5043
AFY37	AFY40	AF239S	AFY39
AFY39	AFY40	AF239S	AFY37
AFY40	AF239S	AFY37	AFY39
AFY40R	AF239S	AFY40	AFY37
AFY41	AFY42	2N5244	2N3324
AFY42	AF239S	AFY40	AFY37
AFZ10	ASY27	AFY10	2SA72
AFZ11	AFZ12	AFY12	AF102
AFZ12	AF102	AFY12	AF106
AL100	AU101	2N1906	AU105
AL101	AU102	2N1905	AL100
AL102	AM114	AD167	2N2147
AL103	AM111	AD166	2N2148
AL112	AL103	2N2148	AM111
AL113	AL103	2N2148	AM111
ALZ10	AUY10	2N4033	
ASY12	AC117	ASY80	2SB415
ASY12-1	ASY70	2N527	NKT229
ASY12-2	ASY70	2N527	NKT229
ASY13	ASY48	2N241	2SB89
ASY13-1	AC153	2N5022	NKT217
ASY14	ASY48	ASY80	2SB415
ASY14-1	ASY48	ASY80	2SB415
ASY14-2	ASY48	ASY80	2SB415
ASY14-3	ASY77	NK217	2N
ASY23	ASY26	ACY21	2SB33
ASY24	AF239	ASZ23	ASY80
ASY26	MA1703	2N799	2SA1550
ASY27	ASY32	2N36	2SB101
ASY28	ASY73	ASY74	AC153

TYPE No.	POSSIBLE SUBSTITUTES		
ASY29	ASY74	2N211	2SA255
ASY30	ASY27	2N36	2SB101
ASY31	ASY26	2N506	2SB219
ASY32	ASY27	2N506	2SB219
ASY48	MA1703	2N241	2SB89
ASY50	ASY48	2N526	AC122
ASY51	MA1703	MA1704	
ASY52	ASY48	2N1926	ASY723
ASY53	ASY28	2N5135	NKT717
ASY54	ASY26	2N1303	ASY48
ASY55	ASY27	2N1303	TF49
ASY56	ASY26	TF49	2N1303
ASY57	ASY56	2N1305	2N1303
ASY58	ASY27	2N1307	TF49
ASY59	ASY58	2N1307	TF49
ASY60	ASY64		
ASY61	ASY28	2N5135	NKT717
ASY62	ASY29	2N5135	NKT717
ASY63	ASY70	2N1189	NKT229
ASY64	ASY26	2N2927	NKT135
ASY66	ASY27	2N1307	NKT135
ASY67	BCY70	2N3964	2SA549
ASY70	AC119	2N404	2SB222
ASY71	ACY24	2N2042	NKT229
ASY73	ASY74	AC153	ASY75
ASY74	ASY75	ASY73	AC153
ASY75	MA1703		2SC91
ASY76	ASY48	2N526	ACY16K
ASY77	ASY48	2N526	ASY81
ASY78	ASY48	2N5022	NKT217
ASY80	ASY48	ACY24K	2N527
ASY81	2N1191	ASY77	ASY81
ASY90	2N1191		
ASY91	2N1192		
ASZ15	AD132	AUY28	2SB424
ASZ16	AD150	AUZ11	2SB425
ASZ17	AD150	AUZ11	2SB425
ASZ18	AUY28	2SB424	AUY22
ASZ20	ASY80	BCY70	2N527
ASZ20N	ASZ20		
ASZ21	ASZ20	ASY80	3CY70
ASZ23	ACY24	ASY24	ASZ23
ASZ30	ASY26		
AT209	ASY48	2N2927	NKT229
AT210	ASY70	2N2927	NKT229
AT216	AU104	MP3731	AU112
AT318	BF115	BF221	NKT10339
AT319	BF115	BF224	NKT10339
AU101	AU103	AUY22	AU105
AU102	AC128	AUY22	2N174
AU103	AU105	2SB468	AU110
AU104	2N5325	AU112	AU111
AU105	AU103	ASZ15	2SB468
AU106	AU112	2N5325	AU107
AU107	2N5325	AU112	AU106
AU108	ASZ15	AD132	AUY28
AU110	AUY38	ASZ15	2SB424
AU111	2N5325	AU112	AU106
AU112	2N5325	AU111	AU106
AU113	2N5325	AU112	AU106
AUY10	ACZ10	2N4033	2N2147
AUY18	AD148	ASZ15	2SB424
AUY19	ASZ16	2N1044	2SB250
AUY20	ASZ18	2N167A	2SB87
AUY21	ASZ16	2N352	2SB86

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POSSIBLE SUBSTITUTION GUIDE

TYPE No.	POSSIBLE SUBSTITUTES		
AUY21A	ASZ15	AD148	2SB424
AUY22	ASZ15	2N174	2SB87
AUY22A	ASZ15	AD148	2SB424
AUY28	AUY30	AUY28	2SB340
AUY29	ASZ16	ADZ11	AUY29
AUY30	ASZ16	AUY28	ASZ15
AUY31	ASZ18	AUY28	ASZ16
AUY32	ASZ18	AUY20	ASZ15
AUY33	AD149	AUY28	ASZ16
AUY34	ASZ18	AUY28	ASZ15
AUY35	AUY30	ASZ16	AUY28
AUY36	AUY38	AUY35	ASZ15
AUY37	AUY34	AUY30	ASZ18
AUY38	ASZ15	AUY20	ASZ18
AUZ11	AD150	ASZ16	ASZ17
B1085	AU105	2N5005	2N1906
B1178	AU105	2N5007	2N1906
B1181	AU105	2N5009	2N1906
BC100	BD115	BC127	BCY49A
BC107	BC347	2N3568	2SC458
BC107A	BC182A	2N3568	2SC458
BC107B	BC182B	MPS6566	BC207B
BC108	BC348	MPS6520	BC168
BC108A	BSY76	2N3391	2SC458
BC108B	BSY80	BC183B	MPS6520
BC108C	BC183C	MPS6520	BC208C
BC109	BC319	MPS6521	
BC109B	BC184B	MPS6521	2SC4528
BC109C	BC184C	MPS6521	BC209C
BC110	MPSL01	2N3701	2SC856
BC111	BC146		
BC112	MMT70	BC246	BC122
BC113	BC348	MPS6520	2SC458
BC113A	BC148B	BC172B	2SC458
BC114	BC318	MPS6521	2N3568
BC114A	BC149B	BC173B	2SC587A
BC115	BC348	MPS6566	2SC984
BC116	BC117	MPS6534	2SA565
BC116A	BC117	BC261	2SA565
BC117	MPSL01	2N5831	3C141
BC118	BC347	2N4401	2N3568
BC119	BD507	2N2218	BC140
BC120	MPSA05	2N2218	2N3665
BC121	BC349	BFY87A	BC146
BC122	BC349	BFY87A	DC146
BC123	BC348	BC112	BC146
BC125	MPS6532	MPS6566	BC182
BC126	MPS6526	2N4402	2N5041
BC127	BC122	BC198A	BC146rt
BC128	BC146gn	BC146	
BC129	BC347	MPS6566	BC207
BC130	BC348	MPS6520	BC318
BC131	BC319	MPS6521	BC319
BC132	BC348	2N3565	BC108B
BC134	BC347	BC182B	BC107B
BC135	BC347	MPS6566	2N3568
BC136	BC317	MPS6566	BC171
BC137	BC350	MM3726	2N1132
BC138	BC337	BC160	2N2219
BC139	BC327	MM3726	2N1132
BC140	BD527	2N2218A	2N3036
BC141	BD529	2N3020	2N3036
BC142	BD517	2N3020	2N3036
BC143	BD518	BSY46	MM3726
BC144	BD517	2N2218A	BSY44

TYPE No.	POSSIBLE SUBSTITUTES		
BC145	MPS01	BF178	BC141
BC146	BC349		
BC147	BC107	BC207	NPS6566
BC147A	BC182A	2N3568	2SC281
BC147B	BC182B	2N3568	BC171B
BC148	BC108	MPS6520	BC208
BC148A	BC172A	2N3568	2SC281
BC148B	BC183B	2N3568	BC172B
BC148C	BC172C	BC183C	2N3568
BC149	BC109	MPS6521	BC209
BC149B	BC109B	BC184B	2SC587A
BC149C	BC109C	BC184C	2SC587A
BC150	BC239C		
BC151	BC238B		
BC152	BC337	2N2222A	BC140
BC153	BC322	MPS6516	2N5041
BC154	BC322	BC252	MPS6522
BC155	BC349	BC121	BC146
BC156	BC349	BC121	BC146
BC157	BCY70	MPS6516	2SA565
BC158	BC351	MPS6522	2SA565
BC159	BC322	MPS6523	2SA566
BC160	BD515	2N1132	MM3726
BC161	BD517	2N4037	2N2904
BC161-6	BC287	2N3720	2N4037
BC161-10	BC287	2N3436	2N4037
BC161-16	BC207A	MPS6576	2N3242
BC167	BC107	BC182	2SC458
BC167A	BC107A	BC182A	MPS6566
BC167B	BC171B	BC182B	MPS6566
BC168	BC348	MPS6520	BC208
BC168A	BC108A	BC183A	2SC458
BC168B	BC108B	BC183B	2SC458
BC168C	BC108C	BC183C	2SC458
BC169	BC319	MPS6521	BC184
BC169B	BC109B	BC184B	2SC587A
BC169C	BC109C	BC184C	2SC587A
BC170	BC108	BC183	2SC281
BC170A	BC238A	BC148	2SC458
BC170B	BC238A	BC237	2N5825
BC170C	BC238C	BC140	2N3242
BC171	BC237	MPS6566	2SC458
BC171A	BC237A	BC140	2N3242
BC171B	BC237B	2N3710	2SC458
BC172	BC238	MPS6520	2SC458
BC172A	BC238A	2N3711	2SC458
BC172B	BC238B	2N3711	2SC458
BC172C	BC238C	SE6002	2N5961
BC173	BC239	MPS6521	2SC458
BC173B	BC239	SE6002	2N5961
BC173C	BC239C	2N3565	MPS3393
BC174	BC110	BC267	2SC856
BC174A	BCY65E-7	MPS6521	SE4020
BC174B	BCY65E-8	MPS6518	2N5547
BC175	BC337	2N2222A	BC140
BC177	BC350	2N3703	2SA565
BC177/6	BCY77 VI	MPS6518	2N5547
BC177A	BC221	MPS6519	2N5547
BC177B	BC221	MPS6519	2N5547
BC178	BC351	MPS6518	2SA565
BC178/6	BC221	MPS6522	2N5547
BC178A	BC221	MPS6522	2N5547
BC178B	BC221	MPS6522	2N5547
BC179	BC322	MPS6519	BC206
BC179A	BC221	MPS6522	2N5547

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POSSIBLE SUBSTITUTION GUIDE

TYPE No.	POSSIBLE SUBSTITUTES		
BC179B	BC221	MPS6522	2N5547
BC180	BC140	BC301	2N2222A
BC181	BC350	BC204	BC177
BC182	BC237	BC207	MPS6566
BC182A	BC237B	MPS3704	2N3704
BC183	BC238	MPS6520	BC208
BC183A	BC327	MPS3704	2N3704
BC183B	BC327	MPS3704	2N3704
BC183C	BCY59D	MPS6575	2N2926
BC184	BC239	MPS6521	BC209
BC184B	BC237B	MPS6575	2N2926
BC184C	BCY59D	MPS6575	2N2926
BC185	BC337	2N2219	BC181
BC186	BC351	BC281	BC178
BC187	BC351	BC181	BC179
BC190	MPSA05		
BC190A	BDY65E-7	2N4409	2N3904
BC190B	BCY65E	2N4409	2N3904
BC192	2N2907	BD205	BD605
BC194	BF115	BF184	2N2222
BC196	BF167	BC173	
BC197	BC347	BC317	BC237B
BC198	BC348	BC318	BC1469
BC199	BC319	BC109	BC184
BC200	BC352	BC322	BC352
BC201	MMT73	BC109	2SA565
BC202	MMT71	BC238	2SA565
BC203	MM3799	BC237	2SA565
BC204	BC157	BC251	2SA564A
BC204/6	BC307 VI	2N3251	2N3638
BC204A	BC307A	2N3251	2N3638A
BC204B	BC307B	2N3251	2N3638A
BC205	BC158	BC252	2SA564
BC205/6	BC308 VI	2N3134	2N5447
BC205A	BC308A	2N3702	2N5447
BC205B	BC308B	2N3134	2N5447
BC206	BC159	BC253	2N5447
BC206B	BC309B	2N3644	2N3251
BC207	BC107	BC182	TIS98
BC207A	BC107A	2N3566	MPS6514
BC207B	BC107B	2N3566	MPS6514
BC208	BC108	BC183	MPS6520
BC208A	BC238A	2N5136	MPS6574
BC208B	BC238A	2N2925	MPS6594
BC208C	BC238C	2N2926	MPS6574
BC209	BC319	BC109	MPS6521
BC209B	BC239B	2N5136	MPS6574
BC209C	BC239C	2N5136	MPS6574
BC210	BC337	BSX33	2N731
BC211	BD509	2N3020	MPSA06
BC212	BC157	BC251	MPS6516
BC212A	BC140	2N5819	2N1121
BC212B	BC140	2N5819	2N3906
BC213	BCY70	BC251	MPS6516
BC213A	BC327	2N3906	2N4121
BC213B	BC327	2N3906	2N4121
BC213C	BC327	2N3906	2N4121
BC214	BC159	BC150	MPS6523
BC214A	BC327	2N3906	2N4121
BC214B	BC327	2N3962	2N4121
BC214C	BC327	2N3962	2N4249
BC215	BC327	BC231	MPS6534
BC215A	BC160-6	2N4031	2N4236
BC215B	BC160 10	2N4033	2N4236
BC216	BC328	2N2906	BC117

TYPE No.	POSSIBLE SUBSTITUTES		
BC216A	BC327	2N2906	BC117
BC216A	BC327	2N2906	BC117
BC218A	BC107	BC183	MPS6566
BC219	BC140	BC341	2N2218
BC220	BC148	BC172	MPS6520
BC221	BC327	2N2907	BC117
BC222	BC337	2N2222	BFY50
BC223	BC140	2N2218	2N3020
BC224	BC158	BC252	MPS6522
BC225	BC157	BC251	MPS6516
BC226	BC140	BC337	2N2222
BC231	BC177	BC261	MPS6516
BC232	BC107	MPS6566	BC317
BC234	BC107A	BC182A	TIS98
BC235	BC107B	BC182B	TIS98
BC237	BC107	BC182	TIS98
BC237A	BSX33	2N731	NKT10339
BC237B	BC207A	MPS6575	2N5825
BC238	BC108	BC183	MPS6520
BC238A	BC207B	MPS6575	2N3566
BC238B	BC208A	MPS6574	2N2924
BC238C	BC208B	MPS6574	2N5136
BC239	BC109	2N5827	MPS6521
BC239B	BC208C	MPS6574	2N2926
BC239C	BC209B	MPS6574	2N5136
BC250	BC177	BC307	2N6015
BC250A	BC209	MPS3104	2N5136
BC250B	BC209	MPS3703	2N3133
BC250C	BC209	MPS3702	2N3133
BC251	BC157	BC307	2N6015
BC251A	BC205B	MPS3702	2N3134
BC251B	BC307A	2N4121	2N3790
BC251C	BC204A	2N4121	2N3906
BC252	BC158	BC213	MPS6522
BC252A	BC204B	2N3906	2N4121
BC252B	BC308A	2N3644	MPS6519
BC252C	BC308B	2N3644	MPS6519
BC253	BC159	BC214	MPS6523
BC253A	BC2050	MPS6519	2N3644
BC253B	BC309A	2N3251	2N3133
BC253C	BC309B	2N3251	2N3134
BC254	BC110	BC174	2SC856
BC255	BF178	BC145	BFY110
BC256	BC157	BC251	MSP6521
BC256A	BC117	2N1890	2N5320
BC256B	BC204	2N3644	MPS6534
BC256C	BC204A	2N4359	MPS6534
BC257	BC157	BC251	2N6015
BC257/6	BC204B	2N4059	MPS6534
BC257A	BC143	2N3644	2N6015
BC257B	BC143	2N3644	2N6015
BC258	BC212L	2N5086	EN4126
BC258/6	BC287B	BC307	2N5447
BC258A	BC291D	MPS6518	2N4922
BC258B	BC291A	MPS6518	2N4922
BC258C	BC291D	MPS6519	2N4922
BC259	BC159	BC253	MPS6523
BC259B	BC283	MPS6522	2N3134
BC259C	BC283	MPS6522	2N3134
BC260	BC158	BC213	2N6015
BC260A	BC204A	BCY70	2N4121
BC260B	BC204B	BCY70	2N4121
BC260C	BC204	BCY71	2N4121
BC261	BCY79	2SA540	2N3965
BC261A	BC307	2N3966	2N3965
BC261B	BC307	2N3906	2N3965

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TYPE No.	POSSIBLE SUBSTITUTES		
BC261C	BC309	2N6003	2N6015
BC262	BC158	BC252	2N5547
BC262A	BC205VI	2N3251	2N3638
BC262B	BC205A	2N3251	EN3638A
BC262C	BC205B	2N3251	EN3638A
BC263	BC159	BC253	MPS6523
BC263A	BC309	2N6003	MPS6516
BC263B	BC206B	2N3134	MPS6517
BC263C	BC206C	2N3134	MPS6518
BC264	2N3821-	BCY71	2N3965
BC266	BC212	BC307	2N6015
BC266A	BC139	2N2906A	2N3250A
BC266B	BC139	2N2906A	2N3250A
BC266C	BC139	2N2907A	2N3251A
BC267	BC527	2N2218	2N3036
BC267A	BC107A	2N3566	MPS6514
BC267B	BC107B	2N3566	MPS6514
BC268	BCY71	2N2218	2N3036
BC268A		2N3565	MPS6574
BC268B	BC208B	2N2925	MPS6574
BC268C	BC208C	2N2926	MPS6574
BC269	BFX95	BC140	2N2222A
BC270	BFY50	BC223	2N3020
BC270A	BF371	BF206	MPS6574
BC270B	BC208B	2N3565	MPS6574
BC270C	BC208C	2N3565	MPS6574
BC271	BC338	2N2222	BFX95
BC272	BC337	2N2222	BFX95
BC272A	BSX45-16	2N2222	2N2645
BC272B	BSX45-16	2N2222	2N2645
BC274	BC157	BC251	MPS6516
BC275	BC158	BC252	2N5547
BC276	BC159	BC253	MPS6523
BC277	BC107	BC182	MPS6566
BC278	BC108	BC183	MPS6520
BC279	BC109	BC184	MPS6521
BC280	BFX95	BC140	2N2222A
BC281	BCY70	2N3964	2SA549
BC282	BC337	2N2907	BC231
BC283	BC327	2N2222	BSW24
BC284	BC107	BC182	MPS6566
BC284A	BC140-10	2N4237	2N2218
BC284B	BC140-16	2N4237	2N2219
BC285	BF257	BF120	BF118
BC286	BC141	BC301	2SC708A
BC287	BC160	BC303	2SC537A
BC288	BC141	BC301	2SC708A
BC289	BC107	BC182	MPS6566
BC289A	BCY59B	2N3665	MPS6576
BC289B	BCY59C	2N3665	MPS6576
BC290	BC414	2N930	BC184
BC290B	BCY59C	2N5136	MPS6574
BC290C	BCY59D	2N5136	MPS6574
BC291	BC157	BC251	MPS6516
BC291A	BCY79B	2N4121	MPS6519
BC291B	BCY79A	2N4121	MPS6519
BC292	BC414	BC159	MPS6523
BC292A	BC307A	2N4121	MPS6516
BC292B	BC307B	2N4249	MPS6517
BC293	BC323	BFY51	2N2297
BC294	BC161	BC361	2N4036
BC295	BC107	BC183	MPS6566
BC297	BC160	2N1132	MM3726
BC297A	BCY79A	2N3964	MPS6519
BC297B	BCY79B	2N3964	MPS6519

TYPE No.	POSSIBLE SUBSTITUTES		
BC298	BC160	2N1132	MM3726
BC300	BC141	2N3036	2N3020
BC301	BC141	2N3036	2N3020
BC302	BC140	2N2218	2N3020
BC303	BC161	2N4036	2SA537A
BC304	MPSA55	BD516	2N1132
BC307	BC177	MPS6517	BC251
BC307/6	BC204VI	2N4121	MPS6519
BC307A	BC204A	2N3790	MPS6519
BC308	BC178	MPS6518	BC252
BC308/6	BC205VI	2N3790	MPS6519
BC308A	BC205A	2N3790	MPS6519
BC308B	BC205B	2N4121	MPS6519
BC309	BC179	MPS6519	BC253
BC309A	BC206A	2N3790	2N4121
BC309B	BC206B	2N4121	2N3906
BC310	MPSA05	BC141	BC301
BC311	BD528	BC160	BC303
BC312	MPSL01	BD529	2N1893
BC313	MPSA55	BD510	BC161
BC313	BC161	BC303	2N4036
BC314	BF120	BF297	BC236
BC315	BC307	2N5087	BC159
BC317	BC347		
BC318	BC348	BC167	2N5209
BC319	BC109	BC184	2SC587A
BC320	BC350	BC307	BC251
BC320A	BC327	BC307	BC351
BC320B	BC327	BC307	BC251
BC321	BC351	BC320	2N5086
BC322	BC352	BC322	2N5087
BC323	BF380	BFY50	2N2297
BC324	BF380	BFY50	2N2297
BC325	BC350	BCY71	2N3965
BC326	BC350	BCY71	2N3965
BC327		2N5819	
BC328	BC160	BC303	2N2907
BC329	BC114	BC411	2N930A
BC330	BC414	BC290	2N930
BC331	BC110	BC174	2SC856
BC332	BC107	2N3568	2SC458
BC333	BC108	BC348	MPS6520
BC334	BC351	MPS6522	2SA565
BC335	BC319	MPS6521	2N5087
BC336	BC319	MPS6521	2N5087
BC337	2N222A	BC140	BC301
BC338	BC140	BC301	BC140
BC340	BC337	BD509	BC140
BC340/6	BC337	2N5818	MPS6576
BC340/10	BC337/16	2N5818	MPS6576
BC340/16	BC337/25	2N5818	MPS6576
BC341	BC337	BD517	BC140
BC341/10	BC337/40	2N5818	MPS6576
BC341/16	BC337/40	2N5818	MPS6576
BC342	BD517	BFY50	2N2297
BC343	BD517	BC143	2N4037
BC344	BD517	BFY50	2N2297
BC345	BD517	BC143	2N4037
BC347	BD517	BC167	2N5209
BC347A	BD517		2N3903
BC347B	BD517	BC347A	2N3902
BC347L	BD517	BC167	2N5209
BC348	BD517	BC167	2N5209
BC349	BD517	BC169	2N5210
BC350	BC347	BD517	2N5086

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POSSIBLE SUBSTITUTION GUIDE

TYPE No.	POSSIBLE SUBSTITUTES		
BC351	BD517	BC320	2N5086
BC352	BC349	BD517	BC322
BC354	BD517	BC320	2N5086
BC355	BD517	BC320	2N5086
BC357	BD517	BC320	2N5086
BC358	BD517	BC320	2N5086
BC360	BC327	BD516	2N5023
BC360/6	BC327	2N5023	2N3286
BC360/10	BC327	2N5023	2N3286
BC360/16	BC327	2N5023	2N3286
BC361	BD327	BD518	BC157
BC362	BC365	BD140	2N4920
BC363	BC138	BD140	2N4920
BC364	BC367	BD140	2N4920
BC365	BC362	BD149	2N4923
BC366	BC137	BD169	2N4923
BC367	BC364	BD169	2N4923
BC370	BC160	2N1136	MM3726
BC371	BFY51	2N2297	2N2193A
BC377	BC297	BC337	2N2222A
BC378	BC298	BC338	2N731
BC381	BC348	BC307	2N6015
BC382	BC347	BC237	2N5825
BC382B	BC207	2N3566	MPS6575
BC382C	BC207	2N3566	MPS6575
BC383	BC348	BC413B	BC337
BC383B	BC207	2N3566	MPS6575
BC383C	BC207	2N3566	MPS6575
BC384	BC348	BC237	BC109
BC384B	BC207	2N3566	MPS6575
BC384C	BC207	2N3566	MPS6575
BC385	BC347	BC107	BC128
BC386	BC349	BC385	BC108
BC387	BC337	2N2222	2N2645
BC388	BC327	2N2906	2N2907
BC389	BC109	2N930	2S501
BC390	BC109	2N930	2S501
BC391	BC109	2N930	2S501
BC393	BFX90	2N2605	2N3494
BC394	BF380	BF337	2N4927
BC395	BC396	BSW66	2N4001
BC396	BC395	2N4929	
BC400	BC256	BSV68	2N3497
BC404	BC477	BC285	2N1990
BC405	BC256	BC212	BC477
BC406	BC214	BC177	2N5086
BC407A	BC207	BC517	2SC945
BC408	BC108	BC517	2N4966
BC409	BC109	BC517	2N4967
BC411	BC141	2N3020	2SC708A
BC412	BC141	2N3020	2SC708
BC413	BC384	BC239	2N5827
BC414	BC384	BC239	2N5827
BC415	BC214	BC479	2N6015
BC415A	BC413	BC214	BC159
BC416	BC214	BC479	2N6015
BC416A	BC414	BC214	BC159
BC417	BC157	BC204	2SA565
BC418	BC158	BC213	2SA565
BC419	BC159	BC214	BC206
BC420	BFX90	2N4357	2N3494
BC429(A)	BC137	BD169	2N4923
BC430	BD140	2N4920	2N6126
BC430(A)	BC138	BC363	2N4920
BC440	BC140	BSY46	2N2218A

TYPE No.	POSSIBLE SUBSTITUTES		
BC441	BC141	BC310	2N3020
BC460	BC160	BC287	2N1132
BC461	BC161	BC311	2N4037
BC477	MPSL51	BC285	2N1990R
BC478	2N5086	BC479	BC177
BC479	2N5086	BC478	BC177
BC507	BC110	BC182	MPS6566
BC508	BC110	BC182	MPS6566
BC509	BC239	BC184	MPS6521
BC510	BC239	BC184	MPS6521
BC512	BCY70	MPS6516	2SA565
BC513	BC158	BC178	2N4248
BC514	BC159	BC179	2N4250
BC517	BCW44		
BC547	BC347	BC333	2N5818
BC547A	BC347A	BCW47A	
BC547B	BC347B	BCW47B	
BC548	BC348	BC333	2N5818
BC548A	BC348A	BCW48A	
BC548B	BC348B	BCW24	
BC548C	BC348C	BCW48C	
BC549	BC349	BC338	2N5818
BC549B	BC349B	BCW49B	
BC549C	BC349C	BCW49C	
BC557	BC350	BC307	2N6015
BC558	BC351	BC307	2N6015
BC558A	BC351A		
BC558B	BC351B		
BC559	BC352	BC309	2N6003
BC559A	BC352A		
BC559B	BC352B		
BC582	BC107	MPS6566	2SC458
BC583	BC108	MPS6520	2SC458
BC584	BC109	MPS6521	2SC587A
BCW10	BC338	BC140	BC301
BCW11	BC328	ZTX500	BC160
BCW12	BC327	ZTX301	BCW13
BCW13	BC327	ZTX501	ZTX502
BCW14	BC337	BCW16	ZTX302
BCW15	BC327	ZTX502	ZTX501
BCW16	BC337	BCW14	ZTX303
BCW17	BC327	ZTX503	ZTX502
BCW18	MPSL01	ZTX304	BCW46A
BCW19	MPSL51	ZTX504	BCW56A
BCW20	BC337	ZTX330	2N3707
BCW21	BC327	BCW17	ZTX503
BCW22	BC377	ZTX331	2N929
BCW23	BC327	BCW17	ZTX503
BCW24	BC348B	BC548B	2N903
BCW25	BC337	BCW16	ZTX302
BCW26	2XBC337		
BCW29	BC153	2N4060	MPS3702
BCW29R	BC238A	BFS37	
BCW30	BC352B	2N411	MPS3702
BCW30R	BC238B	BFS37	
BCW31	BC348B	2N930	2N2483
BCW31R	BC308	BC178	MPS4518
BCW32	2N5219	BC308B	2N2484
BCW33	2N5223	BC348B	FT107C
BCW33R	BC239C	BFS36	
BCW34	MPSL01	2N2222A	2N484
BCW35	MPSL51	2N2907A	2N5323
BCW36	MPSL01	2N2483	TIS96
BCW37	MPSL51	2N2907A	2N5323

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POSSIBLE SUBSTITUTION GUIDE

TYPE No.	POSSIBLE SUBSTITUTES		
BCW44	BC517	BFX85	2N1893
BCW45	BD518	BFX85	2N1893
BCW46A	MPSL01	ZTX304	BCW18
BCW46B	MPSL01	BCW46A	ZTX304
BCW47	BC147	2N2484	MPS6576
BCW47A	BC347A	BC547A	
BCW47B	BC347B	BC547B	
BCW48	BC148	2N2484	MPS6575
BCW48A	BC348A	BC548A	
BCW48B	BC348B	BC548B	BCW24
BCW48C	BC348C	BC548C	
BCW49	BC149	2N2483	MPS6571
BCW49B	BC349B	BC549B	
BCW49C	BC349C	BC549C	
BCW50	MPSL01	ZTX304	BCW18
BCW56	BC287	2N4356	2N2907A
BCW56A	MPSL51	ZTX504	BCW19
BCW57	BC157	2N4143	2N5323
BCW57A	BC350A		
BCW58	BC158	2N4037	2N4359
BCW58A	BC352A		
BCW59	BC159	2N4037	MPS3703
BCW59A	BC352A		
BCW59B	BC352B		
BCW69	BFS37	BFS36	
BCW70	BFS37	BFS37	
BCW71	BFS36	BFS36	
BCW72	BFS36	BFS36	
BCW73	BFX95	2N2222A	2N4437
BCW74	BFX95	2N2222A	2N4437
BCW75	BSW24	2N2907A	EN2907
BCW76	BSW24	2N2907A	EN2907
BCW77	BFY51	2N2297	2N1613
BCW78	BFY51	2N2297	2N1613
BCW79	2N4405	BFS95	2N4036
BCW80	2N4405	BFS95	2N4036
BCW85	2N2907A	MPSL51	2N6015
BCW86	BC177A	MPSL51	2N6015
BCW90A	BC338	BC140	2N5818
BCW91A	BC338	BC140	2N5818
BCW92A	BC328	BC140	2N5819
BCW93A	BC327	BC140	2N5819
BCW94A	BC337	BC140	2N5818
BCW95A	BC337	BC140	2N5818
BCW96A	BC327	BC140	2N5819
BCW97A	BC327	BC140	2N5819
BCx10			2N1132
BCx31	BFX84	BFX85	
BCx32	BFY50	2N3053	2N1613
BCx33	BFY33		
BCX34	BFY52	BFX86	BC338
BCX35	BFX87	BFX29	2N2905
BCX36	BFX87	BTX29	2N2905A
BCX37	BFX88		
BCX40	2N5336	BCX60	BFX85
BCX60	2N5336	BCX40	BFS93
BCY10	BFY64	OC204	BCY12
BCY11	BFY64	BCY12	OC205
BCY12	BC352	2N1132	BCY7
BCY13	2N2219	BCY14	BSY18
BCY14	BFY13	2N2219	BSY18
BCY15	BC317	2N2219	BSY18
BCY16	BFY14	BSY18	2N2219
BCY17	2N2906	BCY34	2N1132
BCY18	2N2906	BCZ11	2N1132

TYPE No.	POSSIBLE SUBSTITUTES		
BCY19	2N2906	BCY31	BCZ12
BCY20	2N2906	BCY29	BCW52A
BCY21	BCY23	2N2906	2CY32
BCY22	BCY39	2N3496	2N4356
BCY23	BCY21	2N2906	2CY32
BCY24	BCY21	2N2906	2CY32
BCY25	BCY24	2N2906	2CY32
BCY26	BCY23	2N2906	2CY32
BCY27	2N2905	BCZ10	OC443
BCY28	BCY31	2N2906	OC467
BCY29	2N2906	BCZ12	OC449
BCY30	BCY29	2N2906	2CY30
BCY31	2N2906	BCY28	BCW56A
BCY32	2N2906		BCY21
BCY33	2N2906		BCY21
BCY34	2N2906	BCZ10	BCY78
BCY38	2N2906		BCY21
BCY39	BC161	2N2904A	2N2906
BCY40	2N2906		BCY21
BCY42	BC348L	BCY58	BC107
BCY43	BC348L	BCY59	BC107
BCY49	2N2906	BCY72	2S307
BCY50	BC108B	BC183B	MPS6520
BCY50	BC107	BC130	MPS6520
BCY50r	BC109B	BC184B	MPS6521
BCY51	BC108B	BC183B	MPS6520
BCY51t	BC129B	BC207	MPS6566
BCY51r	BC109B	BC184B	MPS6521
BCY54	BCY70	BCY79	2N3964
BCY55	2N2642	2SC280	2N2060
BCY56	FT107B	BC347A	BCY59
BCY56A	BCY59A	MPS6575	SE1001
BCY56B	BCY59B	MPS6575	SE1002
BCY57	BC182A	BC347B	2SC648
BCY57A	BCY58B	MPS3706	SE2001
BCY57B	BCY58C	MPS3706	SE4001
BCY57C	BCY58C	MPS3706	SE4002
BCY58	MPS401	MPS6566	2SC907
BCY58A	BC208	MPS3708	SE2001
BCY58B	BC208	MPS3708	SE5025
BCY58C	BC208	2N5088	2N5135
BCY58D	BC208	2N5088	2N5185
BCY59	MPS402	SE4021	2SC907
BCY59A	BC207	2N3693	MPS3693
BCY59B	BC207	2N3694	MPS3694
BCY59C	BC207	2N5106	MPS6575
BCY65	BC107B	2N248B	2SC648
BCY65A	BCY65 VII	2N2483	BCY86
BCY65E/8	BFR17	2N2484	BCY86
BCY65E/9	BFR17	2N2484	BCY86
BCY66	MPS402	FT107B	2SC648
BCY66/7	BC289A	2N929	MPS3694
BCY67	BCY71	MPS452	SE4021
BCY67/7	BC292A	2N3964	2N5086
BCY67/8	BC292B	2N3964	2N5087
BCY69	BC317C	BR109	2N930
BCY70	BCY79	2N3964	2SA549
BCY71	2N3964	BCY79	BCY71
BCY72	2N3964	BCY78	2SA549A
BCY78	2B3964	BCY72	2SA548
BCY78A	BC283	2N5138	2N4059
BCY78B	BC283	2N5138	2N4059
BCY78C	BC283	2N5138	2N4059
BCY78D	BC283	2N5138	2N4059
BCY79	2N3964	2SA548	BCY72

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POSSIBLE SUBSTITUTION GUIDE

TYPE No.	POSSIBLE SUBSTITUTES		
BCY79A	BC292A	2N3964	2N5086
BCY79B	BC292A	2N3964	2N5086
BCY79C	BC292B	2N3964	2N5087
BCY85	2N5551		
BCY86	2N5551		
BCY87	BC347A		2SC280
BCY87x2	BC347A		
BCY88	BC347A		2SC280
BCY88x2	BC347A		
BCY89	BC347A		2SC280
BCY89x2	BC347A		
BCY90	2N2906		
BCY91	BC287	2N4121	MPS6516
BCY92	BC287	2N3644	MPS6516
BCY93	BCY22	2N5323	2N4027
BCY94	BCY22	2N5323	2N4027
BCY95	BCY22	2N5323	2N4027
BCY96	BCY20	2N4928	2N4037
BCY97	BCY20	2N4928	2N4036
BCZ10	BC352L	BCY27	BCY34
BCZ11	BC352L	BCY28	BC177
BCZ12	MPSL51	BCY29	BCY31
BCZ13	2N5400	BCZ33	BCY33
BCZ14	2N5400	BCY28	BC178
BD106	2N4910	BD575	BD109
BD106A	BD575	2N3054	2SC830
BD106B	BD575	2SC830	BDY34
BD107	BD109	TIP3kA	2SC830
BD109	BD577	2N3054	2SC830
BD111	BD607	2N3054	2SC681A
BD112	BD607	2SC830	D44C6
BD113	BDY39	BD145	2SC1030
BD115	BF381	BF179C	2SC1546
BD116	BD577	2N3055	BD127
BD117	BD599	2N3056	2SC1030
BD118	BD130	2N3055	BD145
BD119	BU111	BD127	BDY39
BD120	BU110	MJ431	BLY49
BD121	BD595	AM291	2N3055
BD123	BD599	AM291	2N3055
BD124	BD577	2N3054	BD107
BD127	BD157	D44R4	BD115
BD128	BD158	BF259	MJ3439
BD129	BD159	BF259	MJ3439
BD130	AM291	2N3055	2SC1030
BD131	BD187	D44C5	TIP33
BD132	BD188	TIP34	MJE105
BD133	BD189	BD441	BD179
BD135	SDA345	BD137	D42C5
BD136	SDA445	D43C5	TIP30
BD137	SAD345	D42C7	TIP29A
BD138	SDB445	D43C7	TIP30A
BD139	SD345	2N4928	2N2102
BD140	SD445	2N4920	2N4036
BD141	2N4347	2N3442	BD130
BD142	AM291	BD410	2N3055
BD144	MJE340	D44R3	
BD145	D44C8	BU110	BU106
BD148	BDY16	BD163	2N3054
BD149	BDY78	BUY46	2N3054
BD150A-C	BD232	BD158	
BD151	BD136	TIP30	2N4926
BD152	BD188	BD440	BD178
BD153	BD190	BD442	BD180
BD154	BD185	BD437	BD175

TYPE No.	POSSIBLE SUBSTITUTES		
BD155	BD187	BD439	BD177
BD156	BD189	BD441	BD179
BD157	BD215	BD158	BD232
BD158	BD215	BD157	BD216
BD159	BD410	BD232	BD157
BD161	BD149	TIP31B	2N3054
BD162	2N4910	D44C7	BD100
BD163	2N4910	D44C6	BD109
BD165	BD135	TIP29	2N4923
BD166	BD136	TIP30	2N4920
BD167	BD137	TIP29A	2N4923
BD168	BD138	TIP30A	2N4920
BD169	BD139	TIP29B	2N4923
BD170	BD140	TIP30P	2N4920
BD171	BD400	BD157	BD232
BD172	BD410	BD157	BD232
BD173	BDY66	BDY65	
BD175	BD437	BD185	BD195
BD176	BD438	BD186	BD196
BD177	BD439	BD187	BD228
BD178	BD440	BD188	BD198
BD179	BD441	BD189	BD156
BD180	BD442	BD190	BD153
BD181	BD130	2N3055	BDY20
BD182	BD130	2N3055	BDY20
BD183	BD130	2N3055	BDX50
BD185	BD437	BD175	BD195
BD186	BD438	BD176	BD196
BD187	BD439	BD177	BD228
BD188	BD440	BD178	BD198
BD189	BD441	BD243B	
BD189	BD441	BD179	BD156
BD190	BD442	BD180	BD153
BD192	BD605	BD205	
BD195	BD437	BD175	BD185
BD196	BD438	BD176	BD186
BD197	BD439	BD177	BD228
BD198	BD440	BD178	BD188
BD199	BD441	BD189	BD179
BD200	BD442	BD180	BD190
BD201	BD595	BDX73	2N6101
BD202	BD596	BDX78	2N6134
BD203	BD597	BDX73	2N6101
BD204	BD598	BDX78	2N6134
BD205	BD192	BD605	2N6101
BD206	BD246A	BDX78	2N6134
BD207	BD245B	BDX73	2N6101
BD208	BD246B	BDX78	2N6134
BD213	BD213/80		
BD213/45	BD249	BD213/60	TIP35
BD213/60	BD249A	BD213/80	TIP35A
BD213/80	BD249B		TIP35A
BD214	BD211/8	BD214/45	2N3054
BD214/45	BD250	BD214/60	2N3054
BD214/60	BD250A	BD214/80	TIP36A
BD214/80	BD250B		
BD215	BD158	BD216	BD157
BD216	BD158	BD215	BD157
BD220	BD589	BD275	2N6123
BD221	BD589	BD275	2N6123
BD222	BD589	BD275	2N6123
BD223	BD590	BD276	2N6126
BD224	BD590	BD276	2N6126
BD225	BD590	BD276	2N6126
BD226	BD233	BD175	BD437

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POSSIBLE SUBSTITUTION GUIDE

TYPE No.	POSSIBLE SUBSTITUTES		
BD227	BD234	BD176	BD438
BD228	BD235	BD177	BD439
BD229	BD236	BD178	BD440
BD230	BD237	BD179	BD189
BD231	BD238	BD180	BD442
BD232	BD157	BD215	BD158
BD233	BD226	BD175	BD437
BD234	BD227	BD176	BD438
BD235	BD228	BD177	BD439
BD236	BD229	BD178	BD440
BD237	BD230	BD179	BD189
BD238	BD231	BD180	BD442
BD239	BD226	BD233	BD175
BD239A	BD235	BD228	BD177
BD240	BD234	BD227	BD176
BD240A	BD226	BD233	BD175
BD241	BD226	BD271	2N6123
BD241A	BD235	BD273	2N6126
BD241B	BD230	BD275	2N6123
BD241C	BD230	BD591	
BD242	BD227	BD244	BD586
BD242A	BD229	BD244A	BD588
BD242B	BD231	BD245	BD590
BD242C	BD231	BD245A	BD590
BD243	BDX73	BD595	
BD243A	BDX73	BD597	
BD243B	BD599		
BD243C	BD602		
BD244	BD202	BD596	
BD244A	BD204	BD598	
BD244B	BD600	BDX78	2N6134
BD244C	BD601		
BD245	BD213/45	BD605	
BD245A	BD213/60	BD607	
BD245B	BD213/80	BD609	
BD246	TIP34		
BD246A	TIP34A		
BD246B	BD214/80	BD610	
BD249	TIP35		
BD249A	TIP35A		
BD250	TIP36		
BD250A	TIP36A		
BD257	BD257/1		
BD258	BD258/1		
BD262	BD678	BD680	BD264
BD262A	BD680	BD678	BD264
BD263	BD677	BD679	BD263A
BD263A	BD679	BD677	BD263
BD264	BD678	BD680	BD262A
BD264A	BD678A		
BD265	BD679		
BD265A	BD679A		
BD266	BD698	BD700	
BD256A	BD700		
BD267	BD697	BD699	BD267A
BD267A	BD699	BD267	BD692
BD271	BD585		
BD272	BD586		
BD273	BD587		
BD274	BD588		
BD275	BD589		
BD276	BD590		
BD301	BD276	2N6123	
BD302	BD276	2N6126	
BD303	BD276	2N6123	

TYPE No.	POSSIBLE SUBSTITUTES		
BD304	BD276	2N6126	
BD306	BD226	BD185	2N4923
BD307	BD226	BD177	2SC856
BD361	BD361		
BD400	BD226	BD157	2N4923
BD410	BD226	BD159	
BD433	BD185	BD437	BD175
BD434	BD186	BD438	BD176
BD435	BD185	BD433	BD437
BD436	BD186	BD434	BD438
BD437	BD187	BD439	BD177
BD438	BD188	BD440	BD178
BD439	BD189	BD441	BD179
BD440	BD190	BD442	BD180
BD441	BD189	BD441	BD179
BD442	BD190	BD442	BD442
BD461	BD185	BD437	
BD462	BD186	BD438	
BD463	BD187	BD439	
BD464	BD188	BD440	
BD505	BFR52	BD362A	
BD506	BFT62		
BD507	BFR12	BFR51	BFR94
BD508	BFR61	BFT61	
BD509	BFR50	BFR97	BFR98
BD510	BFR60	BFT60	
BD515	BFR41	BFT41	
BD516	BFT81		
BD517	BCW44	BFR40	
BD518	BCW45	BFT80	BSV59
BD519	BFR39	BFT39	
BD520	BFT79		
BD529	BC312	MPSL01	
BD575	BD185	BD195	BD195
BD576	BD186	BD227	BD196
BD577	BD187	BD439	BD228
BD578	BD188	BD440	BD198
BD579	BD237	BD189	BD179
BD580	BD190	BD238	BD180
BD581	BD239	BD177	BD439
BD582	BD238	BD178	BD440
BD585	BD271	BD589	2N6123
BD586	BD272	BD590	2N6126
BD587	BD273	BD589	2N6123
BD588	BD274	BD590	2N6126
BD589	BD275		2N6123
BD590	BD276		2N6126
BD591	BD243C	BD602	
BD592	BD244C	BD601	
BD595	BD201	BDX27	2N4904
BD596	BD202		
BD597	BD203	BDX28	2N4905
BD598	BD204		
BD599	BDX29	2N4906	BDX77
BD600	BDX78	BDX78	2N6134
BD601	BD245C	BD605	
BD602	BD246C	BD610	TIP34
BD605	BD205	BD192	2N2907
BD606	BD202	BD206	BD246
BD607	BDX70	BDX71	
BD609	BDX72	BDX70	
BD610	BD208	BD246B	
BD678A	BD264A		
BD679	BD265		
BD679A	BD265A		

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POSSIBLE SUBSTITUTION GUIDE

TYPE No.	POSSIBLE SUBSTITUTES		
BD680	BD442	2N5195	TIP32
BD695	BDX73	2N6101	
BD697	BDX73	2N6101	
BD698	BD266	BD700	BDX62
BD698A	BDX62A		
BD699	BDX63	BDX73	2N6101
BD699A	BDX63A		
BD700	BD266	BD698	
BD701	BDX73	2N6101	
BD702	BD442	2N5195	TIP32A
BDX10	AM291	2N3055	2N3713
BDX11		2N3442	
BDX12		MJ431	2N4347
BDX13	BDY38	BD130	2N4907
BDX14	2N3740		
BDX18	2N3792	2N3787	
BDX23	BDY20	2N3055	40636
BDX24	BUY38	2N3054	40250
BDX27	BD595	BD201	2N4904
BDX28	2N4905	BD597	BD203
BDX29	BD599	2N4906	
BDX30	BD601		
BDX35	BD441	2N5192	TIP31A
BDX36	BD441	2N5192	TIP31A
BDX37	BD441	2N5192	TIP31A
BDX40	AU108	2N3772	2N5302
BDX41		2N3771	2N5301
BDX50		2N3772	2N5302
BDX51		2N4348	2N3773
BDX60	BDX10	2N3055U	2N3713
BDX61		2N3055V	
BDX62	BD698	BD266	BD700
BDX62A	BD698A		
BDX63	BD699		
BDX63A	BD699A		
BDX70	BD607	BDX71	2N6098
BDX71	BD607	BDX70	2N6099
BDX72	BD609	BDX73	2N6100
BDX73	BD609	BDX72	2N6101
BDX74	MJE1660	BDX75	2N6102
BDX75	MJE1660	BDX74	2N6103
BDX77	BD599	BDX29	2N4906
BDX78	BD600	2N6134	
BDY10	MJ2256	2N4907	BD130
BDY11	2N4909	MJ2257	BDX50
BDY12	BDY124	2N4910	2SC830H
BDY13	BD124	2N3054	2SC830H
BDY15	BDY12	2N5428	2N3441
BDY15A	D42C8	TIP31A	D44C8
BDY15B	BDY12	2N5428	2N3441
BDY15C	BDY12	2N5428	2N3441
BDY16	BDY13	2N5439	2N3441
BDY16A	D42C8	TIP31A	D44C8
BDY16B	BDY13	2N5429	2N3441
BDY17	2N3771	2N3055	AM291
BDY18	BD130	2N3772	2N3055
BDY19	BD130	2N3773	2N3055
BDY20	AM91	2N3055	BD130
BDY23	BDY92	2N4914	2N3448
BDY24	BDY91	2N4915	BUY12
BDY25	2N437	2N3442	
BDY26	BUY27	2N5387	2N5264
BDY27	BUY28	2N5388	2N3080
BDY28	BUY23	2N5389	2N3080
BDY34	D42C5	TIP31A	D44C8

TYPE No.	POSSIBLE SUBSTITUTES		
BDY38	2N3713	2N4914	2SC665H
BDY39	2N3714	BDX10	2N3055
BDY53	2N6302	BDY56	
BDY54	MJ431	BDY56	
BDY55	AN291	BDX10	2N3055
BDY56	2N4347		
BDY57	2N5403	BDY58	
BDY58	2N4348		
BDY60	BDY13	2N3713	D44C8
BDY61	BDY13	2N3713	D44C8
BDY62	BDY13	2N3054	2N3713
BDY65	BD173	BDY66	
BDY66	BD173	BDY65	
BDY69	2N3054	BDY13	BUY46
BDY71	2N3054	BDY13	BUY46
BDY72	2N3441	2N6233	
BDY73	2N3715	BD142	2N3055
BDY74	2N4347	BDX50	2N3773
BDY76	2N3772	2N5302	BDY40
BDY77	2N2773		
BDY78	2N3054	BDY13	BUY46
BDY79	2N3441	2N3054	2N3767
BDY80	BDY12	2N5002	2N5295
BDY81	BDY13	2N5004	2N5293
BDY82	2N5003	2N4398	TIP34
BDY83	2N5003	2N4399	TIP34A
BDY91	BUY12	BUY13	BDY93
BDY92	BDY23	2N914	
BDY95	MJ3029		
BDY96	MJ423	MJ431	MJ1800
BDY98	BU120		
BF108	BF109	BF114	BF117
BF109	BF371	BF117	BF178
BF110	BF114	BF117	BF140
BF111	BF380	BD115	2SC154C
BF114	BF380	BF117	BF257
BF115	BF117	SE5056	2SC445
BF117	BF178	BF257	2SC154
BF118	BF380	BD115	2SC154C
BF119	BF381	BF258	
BF120	BF179	BF380	2N5833
BF121	BF196	BF371	2SC454
BF123	BF197	2SC464	BF371
BF125	BF197	BF314	BF371
BF127	BF167	BF367	2SC682
BF130	BSY39	2N930	2N4124
BF131	BSY39	2N930	2N4124
BF132	BSY70	2N2222	2SC907
BF133	BSY70	2N2222	2SC907
BF134	BF115	BF371	2SC682
BF136	BF367	BF225	SE5056
BF137	BF380	BF115	BF173
BF138	BF367	BF225	SE5056
BF140	BF380	2N257	BFY43
BF140D	BF179C	BF118	2SC154C
BF152	BF371	BFX62	SE3005
BF153	BF371	2N5363	BF185
BF154	BC348	MPS6565	BF254
BF155	BF371	2N4134	BFX62
BF156	BF380	BF178	SE7002
BF157	BF380	SBF257	2SC154C
BF157B	BF179C	BF118	2SC154C
BF158	BF395	2N3563	40478
BF159	BF371	40478	BF237
BF160	BF395	BF237	40478

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TYPE No.	POSSIBLE SUBSTITUTES		
BF161	BF366	BF255	2N4134
BF162	BF366	BFX62	BF173
BF163	BF367	BF196	BF198
BF164	BF367	BF198	BF224
BF165	BF394	MPS6565	2N3564
BF166	BF366	2N4134	BFX62
BF167	BF367	SE5056	2SC682
BF168	BF366	BF167	BF189
BF169	BC347	MPS6520	BC183A
BF169R	BF347B	BF183A	MPS6520
BF170	BF114	BF117	2SC154C
BF173	BF371	FT129	2SC464
BF174	BF380	BF170	BF178
BF175	BF367	2N4134	2N4012
BF176	BF371	SE5025	BF311
BF177	BF380	SE7002	2SC856
BF178	BF380	BF140D	2SC856
BF179	BF381	SBF258	2SC154C
BF179A	BF179	BF118	2SC154C
BF179B	BF179C	BF118	2SC154C
BF179C	BF118	D40N1	2SC154C
BF180	MT1061	MPSH33	BF155
BF181	SE3005	BF366	BF367
BF182	BFX62	SE3005	BF366
BF183	BFX62	SE3005	BF366
BF184	BF395	SE5056	2SC460
BF185	BF395	SE5056	2SC535
BF186	BF380	BF178	2SC154C
BF187	BF173	BF371	2SC464
BF188	BF167	BF367	2SC682
BF189	BF115	BF224	2SC460
BF194	BF115	SE5056	2SC460
BF195	BF163	SE5056	2SC535
BF196	BF225	SE5056	2SC682
BF197	BF330	SE5030B	2SC464
BF198	BF167	BF367	2SC682
BF199	BF173	BF224	2SC464
BF200	BF162	BF366	SE5024
BF206	BF371	BF208	BF252
BF207	BF367	BF207	BF167
BF208	BF371	BF206	BF208
BF209	BF366	BF209	BF263
BF212	BF155	MPSH33	MT1061
BF213	BF155	MPSH33	MT1061
BF214	BF184	BF194	BF395
BF215	BF371	BF185	BF237
BF216	BF395	SE5056	2SC460
BF217	BF395	SE5056	2SC460
BF218	BF199	BF224	2SC862
BF219	BF395	SE5056	2SC460
BF220	BF200	BF310	2SC466
BF222	BF373	BFX62	BF195
BF223	BF371	SE5030B	BF224
BF224	BF371	SE5030B	2SC682
BF225	BF367	SE5056	2SC682
BF226	BF185	BF371	BF237
BF227	BF173	BF224	2SC464
BF228	BSX21	2N1990R	
BF229	BF395	SE5056	BF254
BF230	BF395	BF195	SE5056
BF232	BF371	BF224	2SC464
BF233	BF184	BF238	2SC460
BF234	BF395	BF229	BF254
BF235	BF371	BF184	BF185
BF236	BF255	BF371	BF206

TYPE No.	POSSIBLE SUBSTITUTES		
BF237	BF371	BF241	SE5056
BF238	BF371	BF240	SE5056
BF240	BF371	SE5056	BF225
BF241	BF371	SE5030B	BF224
BF242	BD107	BD347	2SC281
BF242A	BD110	BD174	2SC856
BF243	2N3588	BF395	BF273
BF244	BF245	MPF121	
BF245	BF244	MPF121	
BF245	BF247	MPF121	
BF247	BF246	MPF121	
BF248	BC348	BSW64	2N2222A
BF249	BC351	BSW24	2N2907A
BF250	BC319	BC109	2N930
BF251	BF167	SE5056	BF367
BF252	BF371	BF206	BF208
BF254	BF395	BF194	SE5056
BF255	BF395	BF195	SE5056
BF256	MPF122	TIS34	
BF257	BF380	BD115	MPSA43
BF258	BF380	BF338	BF259
BF259	BF258	BF33R	BF382
BF260	BF167	BF200	BF366
BF261	BF367	BF173	SE5056
BF262	MPSH33		
BF263	BF366	BF209	BF264
BF264	BF366	BF263	BF209
BF265	BF180	BF302	2SC466
BF266	BF185	BF302	2SC466
BF267	BF167	BF270	2SC682
BF269	BFY90	2N3013	EN3013
BF270	BF367	SE5056	BF189
BF271	BF371	FT129	SE5030B
BF272	MPSH83		
BF273	BF395	BF243	2N3588
BF273C	BF254	MPS6520	2SC461
BF273D	BF255	MPS6520	2SC461
BF274	BF394	BF173	
BF274B	BF254	MPS6520	2SC461
BF274C	BF255	MPS6520	2SC461
BF275	BF200	BF222	2SC682
BF287	BF167	2N4134	BF395
BF288	BF163	SE5056	BF394
BF290	SE5031	BF366	BF209
BF291	2N915	SC347	BF293
BF292	BF380	BF258	
BF293	BC347	2N915	BF291
BF294	MPSA43	D40N2	BF257
BF297	BF118	MPSA43	BF257
BF298	BF118	MPSA42	BF258
BF299	MPSA42	BF382	BF259
BF302	BF160	FT129	BF371
BF303	FT129	SE5031	BF371
BF304	BF371	FT129	SE5031
BF305	SBF257	BF380	BF179B
BF306	BF371	FT129	SE5031
BF308	2N3839	2N3570	2N3571
BF309	2N3839	2N3570	2N3671
BF310	BF395	SE5030B	2SC856
BF211	BF371	BF224	SE5030B
BF314	BF200	BF366	BF162
BF315	BC349		
BF316	MPSH83		
BF317	BC349		
BF320	2N3909		

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TYPE No.	POSSIBLE SUBSTITUTES		
BF321	BD108	BD348	2SC458
BF322	BC337	BF381	BF258
BF323	BC327	BFX29	2N2905A
BF324	BF366	BF372	BF200
BF325	BF167	BF325	2SC682
BF329	BF196	SE5056	BF367
BF330	BF197	SE5031	BF371
BF332	BF152	BF194	BF371
BF333	BF160	BF371	BF195
BF334	SE5056	BF336	BF314
BF335	SE5056	BF385	BF368
BF336	BF380	BF257	BF118
BF337	BF381	BF258	BF118
BF338	BF381	BF259	SE7056
BF339	MPSH54		
BF340	MPSH55	BF451	
BF341	MPSH55	BF450	BF342
BF342	MPSH55	BF450	
BF343	MPSH54	BF451	
BF344	BF371	BF184	BF369
BF345	BF395	BF184	BF368
BF357	MPSH33	BFY90	2N2857
BF366	BF209	BF263	BF264
BF367	BF207	BF167	BF225
BF368	BF335	BF385	SE5056
BF369	BF334	BF384	BF314
BF371	BF206	BF208	BF252
BF372	BF324	BF366	BF209
BF373	BF173	BF224	BF117
BF377	BFX62	SE3005	
BF378	BFX62	SE3005	
BF380	BF292	BF258	
BF381	BF258	BF380	BF258
BF382	BF299	MPSA42	
BF384	BF334	BF369	BF314
BF385	BF335	BF368	SE5056
BF387	BF257	BD115	MPSA43
BF388	BF257	BD115	MPSA43
BF390	SE7056	BF380	BF259
BF394	BF274	BF184	
BF395	BF243	2N3588	BF273
BF398	MSA93		
BF414	BF324	BF366	
BF439	BF316		MPSH33
BF440	BF450	BF342	MPSH55
BF441	BF451	BF340	MPSH55
BF450	BF342	MPSH55	BF167
BF451	BF340	MPSH55	BF173
BF456	BF457	BF127	BD115
BF457	BD115	BF456	BF127
BF458	BD115	BF127	MJE340
BF459	BF338	BF127	MJE340
BF497	BF407	BF224	2SC464
BF516	BF316		MPSH55
BF523	BF407	BF224	2SC464
BF540	BF450	MPS55	BF440
BF541	BF450	BF440	MPSH55
BF542	BF451	BF441	MPSH55
BF594	BF194	BF238	2SC160
BF595	BF195	BF237	2SC461
BF597	BF173		
BFR12	BD507		
BFR16	BDY65E	MPS6566	2N930A
BFR17	BCY65E	MPS6566	2N930A
BFR18	BSX45-6	2N3110	2N2193

TYPE No.	POSSIBLE SUBSTITUTES		
BFR19	BSX46-10	2N3110	2N2193
BFR20	BSX45-16	2N3109	2N2193
BFR21	BSC46-6	2N3020	2N2243A
BFR22	BSW66	2N4001	2N3500
BFR23	BFR24	2N4036	MM4036
BFR24	BFR23	2N4036	MM4036
BFR25	BSV68	2N4390	BSV68
BFR39	BD519		
BFR40	BD517	BCW44	
BFR41	BD515		
BFR50	BD509	BFY51	2N2297
BFR51	BD507	BFR12	2N2297
BFR52	BD505	BFY50	2N2297
BFR56	BFY56	2N2297	2N2193A
BFR60	BD510		
BFR61	BD508		
BFR94	BD507	BD507	BFR12
BFR97	BD509	BFR50	
BFR98	BD509	BFR50	BFR97
BFR99	BC327		
BFS10	2N3866	BFX55	DH0D4
BFS12	2N5042	BFY55	BSX46
BFS17	BF369	BF334	BF384
BFS17R	MSH33	BFS88	
BFS18	BF369	BF334	BF384
BFS18R	MSH33	BFS20R	
BFS19	BF369	BF334	BF384
BFS19R	MSH33	BFS20R	
BFS20	BF369	BF334	BF384
BFS20R	MSH33		
BFS22	2N6255		
BFS22A	2N3924		
BFS23	2N3961	D42C1	
BFS23A	2N3961		
BFS28	MFE3007		
BFS47	BF380	2N1890	2SC154C
BFS48	BSV15-6	DT4455	D40D5
BFS50	D40D1	MT1070	PT3503
BFS51	D40D1	PT4816	PT3503
BFS52	BSV15-10	DT4455	D40D5
BFS53	BSV16-16	2N4036	D40D6
BFS59	MPSU02	BC387	2N4401
BFS60	MPSU02	BC387	2N4401
BFS61	MPSU02	BC387	2N4401
BFS62	BFX89	2N918	EN918
BFS65	BFS69		
BFS69	BFS65		
BFS70	2N3821		
BFS71	2N3822		
BFS72	2N3823		
BFS73	2N3824		
BFS74	2N4856		
BFS75	2N4857		
BFS76	2N4858		
BFS77	2N4859		
BFS78	2N4860		
BFS79	2N4861		
BFS80	2N4416		
BFS86	BFX89	2N918	EN918
BFS89	BD115	SBF258	BF179C
BFS90	2N4929	2N3634	2N5323
BFS91	2N4031	2N3494	2N5323
BFS92	2N4147	2N5149	2N5322
BFS93	2N4149	2N5123	2N5322
BFS94	2N2907A	2N3634	BSV16-10

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TYPE No.	POSSIBLE SUBSTITUTES		
BFS95	MPSU52	2N4036	
BFS96	MPSU52	BC388	2N4403
BFS97	MPSU52	BC388	2N4403
BFS98	BC388	2N2904	EN2907
BFS99	BC380	BF337	2N4927
BFT39	BD519	BFR39	2N2219A
BFT40	BD517	BCW44	BFR40
BFT41	BD515	BFR41	2N2219A
BFT47	BF257	BF380	MPSA43
BFT48	BF258	BF380	MPSA43
BFT49	BF258	BF380	MPSA43
BFT60	BD510	BFR60	2N4036
BFT61	BD508	BFR61	2N4036
BFT62	BD506	BFS95	2N4036
BFT79	BD520	BFS93	2N4037
BFT80	BCW45	BCW45	BFS93
BFT81	BD516	BFS95	2N4036
BFV15x2	2N3810	2N3350	
BFV63	2N2222	BFY34	BSW62
BFV64	2N2907		
BFV65	2N914	BSX48	BSY21
BFV67	2N709	BSY18	BFY66
BFV68	2N930	BC107	BCY59
BFV69	2N918	BFX62	BFY66
BFV80	2N918	BFX62	BFY66
BFV82	2N706	BSY62	BSY70
BFV83	2N708	BSY63	BSY19
BFV85	2N2222		
BFV86	2N2907		
BFV87	2N2368		
BFV88	2N2410		
BFV89	2N2432		
BFV90A	BSY34	2N2219A	2SC479
BFV90B	BSY34	2N2219A	2SC479
BFW10	2N4416		
BFW11	2N4416		
BFW16	2N5108		
BFW16A	BFY99	2N5236	2N2108
BFW17	2N5108		
BFW17A	BFY99	2N5236	2N3866
BFW19	2N3137	2N3014	
BFW20	2N3962	2N2605	BC177
BFW21	2N3963	2N2605	BC177
BFW22	2N3964	2N2605	BC177
BFW23	2N3965	2N2605	BC177
BFW24	2N3108	BSX45	BFY55
BFW25	2N3109	2N697	BSX45
BFW26	2N3110	BFY44	BSX45
BFW29	2N2219A	BC337	
BFW30	BFY69	2N918	2N3839
BFW31	2N2907	BSW24	
BFW32	2N2222	BFY34	BSW62
BFW33	2N1893	BFY45	BSY55
BFW34	2N4432	BFY50	2N2297
BFW35	2N5203	BFY51	2N2297
BFW36	2N3114	2N5073	
BFW37	2N3114		
BFW39	2N2915	2N2930	
BFW39A	2N2915A	2N2920	
BFW40	2N2916	2N2920	
BFW40A	2N2916	2N2920	
BFW41	2N918	BFX62	BFY66
BFW43	2N3494	2N2605	2N4357
BFW44	2N3495	2N2605	2N4358
BFW45	SE7001	BF110	BF178

TYPE No.	POSSIBLE SUBSTITUTES		
BFW46	2N3924	2SC890	
BFW47	BFY99	2N3553	2SC890
BFW51	2N2974	2N2979	
BFW51A	2N2878	2N2979	
BFW52	2N2975	2N2977	
BFW52A	2N2979		
BFW57	SE6020	MPSA05	MPSA06
BFW58	SE6020	MPSA05	MPSA06
BFW59	SE6020	MPSA05	MPSA06
BFW60	BC147A	SE6020	MPSA05
BFW61	2N4222		
BFW63	FT129		
BFW64	MT1061		
BFW66	BCY65E	2N2483	MPS6566
BFW68	2N2222A	BSW64	
BFW70	BFX60	2N3014	MPS6511
BFW71	BFY99	2N5236	2N4428
BFW73	BFY99	2N5106	2N3866
BFW73A	BFY99	2N5106	2N3866
BFW74	BFY99	2N5106	2N3866
BFW75	BFY99	2N5106	2N4428
BFW76	BFY99	2N5106	2N3866
BFW76A	BFY99	2N5106	2N4428
BFW77	BFY99	2N5106	2N4428
BFW77A	BFY99	2N5106	2N3866
BFW78	BFY99	2N5106	2N3866
BFW80	BFY51	2N2297	
BFW88	BFW87		
BFW89	BFX87		
BFW90	BFW87		
BFW91	BFW87		
BFW96	2N4416		
BFW97	2N918	BFX62	BFY66
BFW98	2N5644		
BFW98G	BLX65	MRF607	
BFX11	2N3726		
BFX12	2N3546	2N2894	2SA548
BFX13	2N3546	2N2794	2SA548
BFX15	2N2060		
BFX17	2N3725	2N3553	BFX45
BFX18	MPSH33	2N918	2N4134
BFX19	MPSH33	2N918	BFX60
BFX20	MPSH23	BF173	2N918
BFX21	MPSH32	2N918	2N4135
BFX29	2N4405	2N2905A	2SA537
BFX30	2N4403	2N2905A	2SA537
BFX31	BFX60	MPSH33	2NA134
BFX32	2N3251	2N3250	
BFX33	BFX55	2N2218	MPSH23
BFX34	BSS14	2N5262	BUY47
BFX35	2N3504	2N2838	BFY64
BFX36	2N4024	2N3350	
BFX37	2N2907A	2N3962	2N2906
BFX38	BC161	2N4032	D41D8
BFX39	2N4030	D41D8	BC161
BFX40	BC161	2N4031	2N4033
BFX41	BC161	2N4031	2N4030
BFX42	BFX59	2N4251	2N3839
BFX43	2N2369	BC108	BC183
BFX44	2N2368	MPSH33	BSX19
BFX45	BCW49	2N2222	2SC907
BFX48	2N2905	2N4034	2N2906
BFX50	2N2222A	BSW64	2N731
BFX51	2N2221A	BSW63	BSX33
BFX52	2N2222A	BSW64	2N731

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TYPE No.	POSSIBLE SUBSTITUTES		
BFX53	BFY90	2N918	BFX62
BFX55	BFS23	2N3866	D40D4
BFX59	BFX89	2N918	FT129
BFX60	BF173	FT129	BF117
BFX61	SFT443	2N1893	BF109
BFX62	BF180	MF1061	MSH33
BFX63	3SK20		
BFX65	2N2605	BC179	2N3965
BFX66	2N998	2N997	BFX67
BFX67	2N999	2N998	BFX66
BFX68	2N1711	BC140	BSY46
BFX68A	2N1711	BC140	BSY46
BFX69	2N1613	D40D2	BC140
BFX69A	2N3110	D40D5	BC141
BFX70	2N2060		
BFX71	2N2223		
BFX72	2N2223A		
BFX73	2N918	BFX62	BFX53
BFX74	2N1131	BC160	BC287
BFX74A	2N2232	BC161	BC311
BFX77	BF115	BF173	2N918
BFX82	2N4381		
BFX83	2N4382		
BFX84	2N3108	BDS17	D40D7
BFX85	2N3107	BD517	D40D8
BFX86	2N3109	BD515	D40D5
BFX87	2N2904A	2N2904A	BC161
BFX88	2N2904	2N2904	BC160
BFX89	2N918	2N5179	2SC707
BFX90	2N3930	2N2605	2N3497
BFX91	2N3931		
BFX92	2N929	BCY66	BCY59
BFX92A	2N2483	BCY65	BFY27
BFX93	2N930	BCY66	BCY59
BFX93A	2N2484	BCY66	BCY59
BFX94	2N2221	BC140	BFX69
BFX95	2N2222	BC140	BFX69
BFX96	2N2218	D40D1	BC140
BFX97	2N2219	D40D2	BC140
BFX98	2N3114	D44R2	
BFX99	2N2060B	2N2060	
BFY10	BSX45	2N3177	2N929
BFY11	2N3177	2N929	2N930
BFY12	BCY13	2N2219	2SC479
BFY12B	BSX49	2N2217	2N2194
BFY12C	BFX55	2N2218	2N2193
BFY12D	BFY46	2N2219	2N2192
BFY13	BCY14	2N2219	2N2219A
BFY13B	BFX68	2N4945	2N3722
BFY13C	BFX69	2N3568	2N3725
BFY13D	BFX69A	2N3568	2N5321
BFY14	BCY15	BF140	BFY43
BFY14B	BFR21	2N3419	2N3701
BFY14C	BFR21	2N3421	2N3701
BFY14D	2N3107	2N4410	2N3700
BFY17	BFY10	2N708	2N2218
BFY18	BSX75	BSY93	2N708
BFY19	BSY63	2N708	2N753
BFY20	BF173	2N2218	2N2640
BFY22	BC349	BC146	BFY87A
BFY23	BC349	BC146	BFY87A
BFY23A	BC349	BC146	BFY87A
BFY24	BC349	BC146	BFY87A
BFY25	BSY34	BFY28	BSY44
BFY26	BSY63	2N708	BSY19

TYPE No.	POSSIBLE SUBSTITUTES		
BFY27	BFY28	2N915	2N2221A
BFY28	BSX63	2N708	2N753
BFY29	BC348	BC112	2N4124
BFY30	BC348	BC112	2N4124
BFY33	BSY92	2N1613	2SC479
BFY34	BSY44	2N1613	2SC479
BFY37	BSY70	2N2222	2SC907
BFY39	2N4124	BSY39	2N930
BFY39-1	BSX48	2N834	NKT10439
BFY39-11	BSX33	2N4123	NKT10339
BFY39-111	BSX46/16	2N4876	NKT10439
BFY40	BFY34	2N1613	2SC708
BFY41	BSY45	2N1893	2SC708A
BFY43	BF110	2N3114	2SC154C
BFY44	BFY12	SFT443	2N3725
BFY45	2N2405	2N1990	2SC857
BFY46	BSY71	2N1711	2SC479
BFY47	BC121	BC349	BFY87A
BFY48	BC122	2N930	BC349
BFY49	2N930	BC107	BCY59
BFY50	BSX46	2N2193	2SC708
BFY51	BSY45	2N2193	2SC708
BFY52	BSX45	2N3252	2SC708
BFY53	BSX46	BSY46	D40D1
BFY55	BSY46	2N3253	2SC708
BFY56	BSY46	2N2297	2N3252
BFY56A	2N3110	2N3108	D40D8
BFY56B	D40D8	PG5019	SDT5012
BFY57	BF110	2N3114	BF117
BFY63	2N3137	BFX55	BFS23
BFY64	2N2905	BSV16	D40D7
BFY65	BFY80	2N1990	2SC154
BFY66	BFY62	BF180	2N918
BFY67	BSY44	2N1613	2SC708A
BFY67a	2N2219	2SC708	BSX74
BFY67c	2N2219	2SC708	BSX74
BFY68	BSY71	2N1711	BSX45
BFY68A	2N2219	BSX74	BSY34
BFY69	BC146	BC122	2N706A
BFY70	SFT443	2N3724	D40D4
BFY72	2N2220	2N2219	D40D2
BFY74	2N2221	2N915	BFX55
BFY75	2N2221	2N3947	BC107A
BFY76	2N760	BCY66	BC107
BFY77	2N929	2N930	BCY66
BFY78	2N2616	2N918	BFX59
BFY79	2N3737	2N3725	
BFY80	BF177	2N719A	2SC857
BFY81	2N2917	2N2977	
BFY82	2N2982	2N2223A	2N2952
BFY83	2N2223		
BFY84	2N3423	2N1377	AC117
BFY85	BCY87	2N2640	2SC280
BFY86	BCY89	2N2629	2N3036
BFY88	BFX89	FT129	2SC707
BFY90	BF169	MT1061	2N3013
BFY91	2N2642	BFY86	2SC280
BFY92	BFY85	2N2643	2SC280
BFY99	SFT443	2N3553	2N706A
BLX13	MRF401		
BLX14	2N5942		
BLX15	2N5862	2N5942	
BLX53	2N5945		
BLX65	MRF607	BFW98G	
BLX66	MRF616		

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TYPE No.	POSSIBLE SUBSTITUTES		
BLX67	2N5944	2N5945	
BLX68	2N5646		
BLX69	2N5944	2N6136	
BLX82	2N5039		
BLX83	2N5038		
BLX84	2N5038		
BLX94	2N5637		
BLX95	2N5637		
BLY12	D44C3	BLY88	2N6081
BLY14	SFT443	2N3553	BFY99
BLY15	2N3632	D42C8	PT612
BLY15A	BLY22	2N3553	BLY27
BLY17	SFT441A	BLY16	STC1015
BLY20	BLY16	SFT443A	2N3375
BLY21	BLY16	SFT443A	2N3632
BLY22	SFT440	2N3375	2N3632
BLY23	BLY60	2N3632	2N5069
BLY27	SFT440	2N3375	2N3632
BLY28	SFT443A	BLY16	
BLY33	2N3553	MRF607	D40D1
BLY34	2N6255	D40D1	MRF607
BLY35	2N5642	2N5590	D44C1
BLY36	MSA8506	2N3375	D44C1
BLY37	2N5636	D42C5	PT600
BLY38	2N5944	BLX67	2N5945
BLY39	2N2915		
BLY40	2N2916		
BLY47	2N4915	2N3553	
BLY47A	2N3054	BDY13	BD124
BLY48	BD559	2N3055	2SC1030
BLY48A	BU110	MJ432	2N2822
BLY49	BU110	MJ431	BLY49
BLY49A	BU110	MJ432	2N2822
BLY50	BU110	MJ431	BLY49
BLY50A	BLY74	2N4012	2N3375
BLY53	2N5646	D42C2	SDT6101+
BLY53A	2N5646	D42C2	BLY53
BLY55	MSA8507	2N3926	2N3632
BLY57	2N3926	2N3632	MSA8507
BLY58	2N3937	2N3632	2N3927
BLY59	2N3375	BLY22	SFT440
BLY60	2N3927	2N3632	2N3375
BLY61	BLY78	D40D1	MRF607
BLY62	MSA8507	D42C1	BFS23
BLY63	MSA506	D44C1	PT5693
BLY64	2N5002		
BLY65	2N5003		
BLY66	2N5004		
BLY68	2N5069		
BLY70	2N4915		
BLY72	2N5006		
BLY74	BLY22	2N3375	2N3632
BLY76	2N5922	2N5635	
BLY78	D40D1	MRF607	BLY61
BLY79	D44C1	PT5693	MSA8506
BLY80	BLY22	BLY63	2N3926
BLY81	BLY23	2N3927	2SC598
BLY83	2N5642	2N5590	
BLY84	2N5590		
BLY85	2N6080		
BLY87	2N5590		
BLY87A	2N6081		
BLY88	2N6081	D44C3	BLY12
BLY88A	2N6081		
BLY89	2N6082	D44C1	PT5693

TYPE No.	POSSIBLE SUBSTITUTES		
BLY90	2N6084		
BLY91	2N5641	D42C5	PT600
BLY91A	2N5641	D42C5	PT600
BLY92	2N5642	D44C5	SDJ345
BLY92A	2N5642A		
BLY93	2N5643	D44C4	XB404
BLY93A	2N5643		
BLY94	2N5862	2N6166	
BLY97	2N5641	2N918	
BLY98	2N5636		
BPX25	MRD3056	OCP71	L14A502
BPX29	MRD810		
BPX37	MRD300		
BPX38	MRD3054		
BPX43	MRD3056		
BPX59	2N5777		
BPY65	2N986		
BR100A	2N5527		
BR100B	D42C5	PT600	PT601
BR100C	2N5528	2N3621	
BR100E	2N5529	2N3622	2N5528
BR100F	2N5530	2N3622	2N5529
BR101A	2N5531		
BR101C	2N5532		
BR101E	2N5533	2N5532	
BR101F	2N5534	2N5533	
BR200A	2N5535		
BR200B	2N5536	3N5535	
BR201A	2N5537		
BR201B	2N5538	2N5537	
BSS10	BSX20	2N3261	BSY48
BSS11	2N3360	2N2369A	BSY48
BSS12	BSX20	2N3011	BSY48
BSS13	2N5189	2N3053	2N2243A
BSS14	BFX34	2N5262	BSS27
BSS15	BSV94	2N5320	BSS42
BSS16	BSV93	2N5321	BSS42
BSS17	2N5322	2N4036	2N2904
BSS18	2N5323	2N4036	2N2904
BSS19	BSW69	BFY45	2N3712
BSS20	BSW69	BFY45	2N3712
BSS23	BFY44	2N3110	
BSS26	BFY44	2N3110	
BSS27	BSX45	2N3725	2SC479
BSS28	BSX45	2N3725	2SC479
BSS29	BSX45	2N3725	2SC479
BSS30	BSS32	2N1889	
BSS31	BF156	2N1890	
BSS32	BSS32	2N1893	
BSS38	BSX21	2N1890	
BSS40	BFY44	2N3110	
BSS41	BFY44	2N3110	
BSS42	BSS15	2N5320	
BSS43	BSS15	2N5320	
BSS68	BSV28	2N2605	
BSV15	D40D5	SDT4455	PG5005
BSV15/6	BFY67	2N3245	2N3644
BSV15/10	BFY67	2N3244	2N3644
BSV15/16	BFY67	2N3644	2N3244
BSV16	D40D7	BFR23	2N4036
BSV16/6	BFS12	2N3644	2N4030
BSV16/10	BFX74A	2N4030	2N3486
BSV16/16	BFX74A	2N4032	2N3644
BSV17	2N4929		
BSV23	2N2369	ZTX313	BSX20

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TYPE No.	POSSIBLE SUBSTITUTES		
BSV24	BC337	BSY95A	ZTX311+
BSV25	2N706A	ZTX312	
BSV26	2N2369	ZTX313	BSX20
BSV27	2N2369A	ZTX314	2N3227
BSV28	MPSL01	ZTX347	
BSV29	2N5400	ZTX342	
BSV33	2N2894	BSX20	2N2369
BSV36	BSV35		
BSV40	BSW64	2N2222A	2N4437
BSV41	BSW64	2N2222A	2N4437
BSV42	BSF95	2N4036	
BSV46	BSW34	2N2907A	
BSV51	BSX21	2N4410	BFY45
BSV52	BC122	BC349	BFY87A
BSV54	BSX90	2N743	BF168
BSV59	BD17	BCW45	BFT80
BSV60	2N2220	D42C6	2N2222
BSV62	2N4393		
BSV64	BFX34	BSX63-6	BSS14
BSV68	BFR25	2N4390	BSV28
BSV69	BFX44	2N5262	
BSV77	BSX32	2N2218	2N3725
BSV81	BSX92		
BSV82	BFS93	2N4149	
BSV83	BFS193	2N4149	
BSV84	BFX85	2N3107	D40D8
BSV85	BFY44	2N3110	
BSV89	BSY70	2N706A	2N3932
BSV90	BSY19	2N708	2N3933
BSV91	BSY70	2N706A	2N5179
BSV92	BSY19	2N708	2N5180
BSW10	BSX46	2N2218A	2N3722
BSW12	BSX32	2N3646	SE3646
BSW19	BFY64	2N3014	2SA548
BSW19A	BFY64	2N3137	BFX55
BSW20	BC307	BFY64	BSV16
BSW21	BCY72	2N2906	BDW21
BSW21A	BCY71	2N3964	BCY79
BSW22	BC178B	2N2907	BCY78
BSW22A	BCY79	2N3964	BCY79
BSW23	2N2904	2N2905	BSX29
BSW24	2N2906	2N2907	
BSW25	2N2894A	BCY72	2N3964
BSW26	BSX59	2N4047	2N3734
BSW27	BSX59	2N4047	2N3734
BSW28	BSX59	2N4047	2N3734
BSW29	BSX60	2N4046	2N3734
BSW32	BSX21	2N5830	MPSL01
BSW33	BC147A	2SC641	BC317
BSW34	BCW47	BFY46	BSX54
BSW35	BCW46	BSY44	2N1890
BSW36	BFY64	2N2905	BSV16
BSW37	2N2907		
BSW38	2N743	BSY17	BSY21
BSW39	BSS32	2N1889	
BSW40		2N4931	
BSW41	BSX32	2N2221	2SC321
BSW42	BC238A	BC207	BC338
BSW42A	BC237A	BC337	2N122A
BSW43	BC238B	BC208	BC338
BSW44	BC205	BC321	BC328
BSW44A	BC327	BSW45A	BC204
BSW45	BC308B	BC206	BC328
BSW45A	BC327	BSW44A	BC206
BSW49	2N3734	BSW24	2N2219A

TYPE No.	POSSIBLE SUBSTITUTES		
BSW50	BFY33	2N2217	BFY67
BSW51	BSY34	2N2218	2SC479
BSW52	BSY34	2N2219	BSW52
BSW53	BSY34	2N2218A	2SC479
BSW54	BSY34	2N2219A	2N2218
BSW58	BSY87	BSY63	BSX72
BSW59	BSY88	BSY62	BSX72
BSW61	BSX49	2N2221	BFX55
BSW62	BSX49	2N2222	BFX55
BSW63	BSX49	2N2221A	BFX55
BSW64	BSX49	2N2222	BFX55
BSW65	BD527	2N3019	2N3725
BSW66	BFY56	2N3019	2N3712
BSW67	2N3712	BD172	D44R1
BSW68	2N3712	BD173	D44R1
BSW69	BFY45	2N3712	2N5551
BSW70	2N2222	BSX21	BFY45
BSW72	BC327	2N2906	2N2907
BSW73	BC327	2N2907	BSW73
BSW74	2N2906	BC327-16	2N2907
BSW75	BC327-25	2N907	2N337
BSW82	BSX48	2N2221	BSX48
BSW83	BSX48	2N2222	BSX49
BSW84	BSX49	2N2221A	BSX49
BSW85	BSY88	2N222A	BSX49
BSW88	BSW33	BC167A	2N3692
BSW88A	BD168A	MPS6573	NKT10419
BSW88B	BC168	MPS6574	NKT10519
BSW89	BSW33	BC167A	2N3692
BSW89A	BC238A	MPS6578	NKT10419
BSW89B	BC238B	MPS6574	NKT10519
BSX12	BSY58	2N3303	BFY44
BSX19	BSX48	2N2368	2SC689
BSX20	BSX48	2N2369	2SC857
BSX21	BFY45	2N1893	2SC857
BSX22	BD509	2N1613	2N3724
BSX23	BFX34	2N1613	2N3725
BSX24	BSX51A	2N2221	2SC907
BSX25	BSX24	2N2222	2N913
BSX26	BSY19	2N2651	2N2368
BSX27	BSX20	2N2368	2N709
BSX28	2N706A	2N2368	2N2369
BSX29	2N2906	2N2894	BCY78
BSX30	2N2410	2N2846	D40D1
BSX32	2N2218	2N3725	D40D4
BSX33	2N2218A	2N3110	BFY44
BSX35	BSX20	2N2906	2N2907
BSX36	BSW41	2N2906	2N2907
BSX38	BSX24	2N708	2SC907
BSX38A	BC168A	MPS6574	NKT10419
BSX38B	BC168B	MPS6574	NKT10519
BSX39	BSX20	2N2651	BSY19
BSX40	BSV15-16	2N2904	2SA537
BSX41	BSV15-16	2N2905	BC160
BSX44	2N2218A	2N709	2N2369A
BSX45	BSX22	2N3252	2N4231
BSX45-6	BSX95	2N4400	2N2297
BSX45-10	BSX95	2N4400	2N3110
BSX45-16	BSX96	2N4401	2N3109
BSX46	BSV64	2N3252	D40D4
BSX46-6	BSY55	2N3108	2N1975
BSX46-10	BSY55	2N3108	2N1974
BSX46-16	BSY56	2N307	2N1973
BSX47	BFR22	2N2102	BD527

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TYPE No.	POSSIBLE SUBSTITUTES		
BSX48	2N2221	2N4013	D40D1
BSX49	2N2222A	2N4013	D40D1
BSX51	BCY58	2N2222	BSW62
BSX51A	SFT714A	BC107A	2N2222A
BSX52	BCY58	2N2222	BSX79
BSX52A	BC107B	2N2222A	BC337
BSX53	BSX51	2N1613	2SC907
BSX53A	BCY58A	2N3710	2N929
BSX53B	BDY58B	2N3711	2N930
BSX54	BSX51A	2N1711	BCY59
BSX54A	BDY59B	2N3710	2N929
BSX59	BSX45	2N3725	2SC479
BSX60	BSX45	2N3252	2SC479
BSX61	BSX45	2N2410	2SC479
BSX62	BSW65	BFX34	2N1889
BSX62-6	BFW47	2N3506	2N2788
BSX62-10	BFW47	2N3506	2N2788
BSX62-16	BFW47	2N3506	2N2789
BSX63	BSW65	BFX34	2N1893
BSX63-6	BSX23	2N3830	2N3507
BSX63-10	BFY68A	2N3507	2N3109
BSX66	BC108A	2N743	BCY58
BSX67	BC108A	2N744	BCY58
BSX68	BC148	2N2884	2SC641
BSX69	BC148	BFY39	2N2884
BSX70	2N2222	BCY59	2N2219
BSX71	2N2222	BCY59	2N2219
BSX72	BSY78	2N2218	2SC479
BSX73	2N2218	BSY78	2SC479
BSK74	BFY46	2N3300	2N2219
BSX75	BSW41	2N4013	2N3704A
BSX76	2N2369	2N3227	BSX77
BSX77	2N2369	2N3227	BSX76
BSX78	2N2369	2N3227	BSX77
BSX79	BSX51A	2N2219	BSY74
BSX80	BSX68	2N708	2SC641
BSX81	BSW33	2N718	2N2410
BSX82	BSV81		
BSX87	2N914	BSX48	BSX20
BSX87A	2N708	2SC641	BSX68
BSX88	2N708	2N708	2SC641
BSX88A	2N914	2N2710	BSX48
BSX89	2N706A	BSX20	2N2369
BSX90	2N743	BSV54	BSY17
BSX91	2N744	BF168	BSY21
BSX92	2N2368	BSY63	BSX19
BSX93	2N2369	BSY63	BSX20
BSX94	2N4207		
BSX95	BSX45	2SC479	2N914
BSX96	BSX45	2SC479	2N2710
BSX97	BSX48	2N2218	2N914
BSY10	BSX32	2N2537	2N2222
BSY11	BSX32	2N2538	BSY44
BSY17	BSY70	2N743	2SC321
BSY18	BCY16	2N744	2SC321
BSY19	BSY63	2N708	2SC321
BSY20	BSY18	2N706B	BSY70
BSY21	BSY10	2N914	BSY63
BSY22	BF115	2N916	2N3014
BSY23	BSY63	2N834	2N2368
BSY24	BSX45	BSY91	2N2218
BSY25	BFX38	2N2218	2N2219
BSY26	BSY18	BSY39	2N706A
BSY27	BSY18	BSY39	2N753
BSY28	BSY19	2N708	2N914

TYPE No.	POSSIBLE SUBSTITUTES		
BSY29	BSY23	2N708	BSY39
BSY32	BSY17	2N743	BSY21
BSY33	BSY18	2N744	BSY21
BSY34	BFY44	2N3724	2SC479
BSY36	BSY38	2N54	BSY21
BSY37	BSY17	2N743	BSY21
BSY38	BSY21	2N708	2N743
BSY39	BSY19	2N708	2N744
BSY40	BCY78	2N2297	2SA548
BSY41	BCY78	2N2894	2SA548
BSY44	BSX45	BSX95	2SC708A
BSY45	BC141-6	2N1893	2SC708A
BSY46	BFY55	2N1613	2SC70
BSY47	BSY62	2N706A	BSY70
BSY48	BSY62	2N706A	BSY70
BSY50	BSY62	2N697	BSY70
BSY51	BFY34	2N897	2SC479
BSY52	BFY34	2N1420	2SC479
BSY53	BFY34	2N1613	2SC479
BSY54	BFY46	2N1711	2N2219A
BSY55	BFY14C	2N1893	2N3498
BSY56	BFY14D	2N1893	BSX46-10
BSY58	BFY44	2N2218	2SC479
BSY59	BC328		
BSY61	BC238A	2N706A	
BSY62	BSY70	2N706A	BSX20
BSY62A	BSY62	2N706A	2SC321
BSY62B	BSY62	2N706A	2SC321
BSY63	BSY19	2N708	2SC321
BSY68	BFY65	2N1990	2N3114
BSY70	BSY62	2N706	2SC321
BSY71	BFY46	2N1711	2N2219A
BSY72	2N3227	MPS6520	2SC648
BSY73	2N2369	2N2221	2SC907
BSY74	2N3227	2N929	2SC907
BSY75	BFY33	2N2221	2SC907
BSY76	BFY12C	2N2221	2SC907
BSY77	BFY34	2N2219	2N2221A
BSY78	BFY46	2N2222A	2N3019
BSY79	BFY45	2N1990R	2SC857
BSY80	2N2221	MPS6520	2SC907
BSY81	BSX72	2N3110	2SC708
BSY82	BSY72	2N2219	2N3109
BSY83	2N2193A	2N1613	2SC708
BSY84	BSX45-10	2N2219A	2N3109
BSY85	2N2193A	2N1893	2SC708A
BSY86	2N2192	2N1892	2N3019
BSY87	BFC14C	2N1893	2N3108
BSY88	BFY14D	2N1893	2N3019
BSY90	BFY46	2N1711	2N2219
BSY91	2N3353	2N2218	2SC708
BSY92	2N1613	2N2219	2SC479
BSY93	BCY64E	2N2222	MPSH33
BSY95	2N2369	2N744	BSY63
BSY95A	MPSH33	2N2218	2SC321
BU100	2N3919		
BU102	BU110	2N3902	2N5239
BU103A	2N4912		
BU104	BU108	BU109	BU207
BU105	2SC937		
BU106	BU111	2N3902	2N5239
BU107	BU110	2N3902	2N5240
BU108	BU109	BU104	BU207
BU109	BU108	BU104	BU207
BU110	M5431	BLY49	BUY18

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TYPE No.	POSSIBLE SUBSTITUTES		
BU111	BU126	MJ105	BU204
BU120	BDY98		
BU125	BUY47		
BU126	MJ105	BU111	BU204
BU134	BDY28		
BU204	MJ105	BU111	BU126
BU205	MJ105	BU111	BU126
BU207	BU108	BU109	BU104
BU208	BU108	BU109	BU104
BUY10	D44C1	PT5693	XB476
BUY11	D44C2		
BUY12	BDY91	BUY13	BDY93
BUY13	BDY91	BDY93	2SC665
BUY14	BDY61	2N4911	2SD125A
BUY16	2N3055	BUY20	BDY54
BUY17	BUY12	2N2914	BDY53
BUY18	BU110	MJ431	BLY49
BUY19	2N5730		
BUY20	MJ431	BUY18	BU110
BUY21	MJ431	BUY18	BUY20
BUY22	MJ431	BUY110	BUY21
BUY24	2N5069	D44C8	PT665
BUY35	MSU31	BUY18	BUY20
BUY38	2N3054		
BUY41	2N5335		
BUY43	MJ413	D44C6	BUY20
BUY46	2N3045	2N3713	D44C8
BUY59	BY110	2N3079	2N3902
BUY60	BU111	2N3080	2N3902
BUY61	BU110	2N3079	2N3902
BUY62	BU111	2N3080	2N3902
BUY63	BU110	2N3079	2N3902
BUY64	BU111	2N3080	2N3902
BUY65	BU111	2N2581	2N3902
BUY66	BU110	2N2582	2N3902
BUY67	BU110	2N2582	
C103	C4012		
C106	C5014		
C111E	BSX53	2N914	NKT13329
C400	BSX48	2N4994	2N2221
C407	BF178	2N3712	2N5184
C420	BFY51	2N2410	2N2194
C424	BFY72	2N3866	2N3724
C425	BFR19	2N2787	2N3253
C426	BSX32	2N2410	2N2194
C442	BFY72	2N3866	2N3724
C444	BSX39	2N3705	MPS3705
C450	BC207A	2N929A	MPS6575
C764	D40N1		
C9080	BC283	2N3644	MPS6516
C9081	BC283	2N3644	MPS6517
C9082	BC205	2N5448	MPS6519
C9083	BC205A	2N5447	MPS6519
C9084	BC205B	2N5448	MPS6519
C9085	BC206B	2N5447	MPS6519
CDT1309	AUY29	MP2061	NKT402
CDT1310	AUY29	MP2061	NKT404
CDT1311	AD131	ASZ17	AUY28
CDT1312	AUY22	MP2062	NKT401
CDT1313	AD132	2N1100	ASZ16
CDT1315	AUY34	MP2063	NKT401
CDT1319	AUY29	MP2061	NKT402
CDT1320	AUY21	MP2062	NKT403
CDT1321	AUY22	MP2063	NKT401
CDT1322	AUY34	AUY28	2N1146C
COT940AB	ADY26	MP1531	2N3314

TYPE No.	POSSIBLE SUBSTITUTES		
COT1075	ADY26	MP902	2N3618
COT1076	ADY26	MP901	2N3616
COT1110A	ADY26	MP1529	2N3312
COT1111A	ADY26	MP1530	2N3313
COT1112	ADY26	MP1531	2N3314
CST1773	AUY21	MP1529	NKT451
CST1773A	AUY21	MP1530	NKT451
CST1773B	AUY22	MP1531	NKT405
CST1789	AUY34	MP1532	NKT403
CPT1104	AUY34	MP1552	2N5148
CPT1108	AUY22	MP1551	2N5148
CPT1109	AUY22	MP1551	2N1906
CPT1111	AUY21	MP1550	2N1905
CTP1500	AD138	2N1100	2N1556
CTP1503	AD104	2N1100	2N1555
CTP1504	AD133	2N1554	ASZ18
CTP1508	AD133	2N1553	ADZ11
CTP1544	AUY34	MP1556	NKT401
CTP1552	AUY22	MP1555	NKT403
CTP3500	ADZ12		
CTP3503	ADZ12		
CTP3504	AUY21	MP1554	NKT401
CTP3508	AUY21	MP1553	NKT403
CTP3544	AUY21	MP1558	NKT402
CTP3545	AUY22	MP1559	NKT401
CTP3552	AUY21	MP1559	NKT401
CTP3552	AUY21	MP1557	NKT403
CTP3553	AUY34	MP1560	NKT401
D40C4	RM3022		
D40D1	MT1070	PT3503	PT4816
D40D2	MPS-U01		
D40D4	DT1511	ZT1700	PG5007
D40D5	SDT4455	PG5005	TIP29A
D40D8	PG5019	SDT5012	TIP29A
D40N1	TRS140HP	TRS160MP	TRS180HP
D40N3	TRS301HP	MM3003	MPS-U10
D40N4	MJ421		
D41D2	MPS-U51		
D41D4	MM4019		
D41D5	MPS-U52		
D41D8	MPS-U55		
D42C1	BFS23	2N3961	S801
D42C2	SDT6101+		
D42C3	SDT9001	PG5115	SDT9004
D42C4	PT4690	SDT4551	SDT4553
D42C5	PT600	PT601	SDT3426
D42C6	SDT3321	SDT3421	SDT4303
D42C7	PT2635	PG5044	SDT5907
D42C8	PT612	SDT3326	SDT4302
D43C3	SDT3506		
D43C4	PT4690		
D43C5	SDT3501	SDT3505	TIP32A
D43C6	SDT332s		
D43C7	PT2635	SDT3502	
D43C8	SDT3322	MJ8100	
D44C1	PT5693	XB476	BLY63
D44C2	BUY11		
D44C3	BLY12		
D44C4	XB404	XB408	
D44C5	SDT6011	SDT6031	STC1300
D44C6	SDJ345	SDK4345	SDT6013
D44C7	SDT6001		
D44C8	PT665	SDL34	2N6122

NOTE: No two transistors can be considered to be exactly equivalent; therefore, before substituting, reference should be made to the manufacturers data.

TYPE No.	POSSIBLE SUBSTITUTES		
D45C3	MM4020		
D45C4	STC5205	STC5805	
D45C5	STC5202	MJ3701	
D45C6	SDJ445	SDT3575	
D45C7	SDT3579	STC5206	
D45C8	SDL445	SDN445	2N6125
DT1003	BFY44	BFY12	SN3725
DT1110	BFY44	BFY12	SN3725
DT1111	D40D7	ZT1479	DT1121
DT1112	D40N1	ZT1480	DT1120
DT1120	D40D1	DT1112	ZT1480
DT1121	D40D7	ZT1481	DT1311
DT1122	D40N1	ZT1482	DT1120
DT1311	D40D7	DT1121	ZT1481
DT1321	D40D7	ZT1481	DT112
DT1510	D40D1	DT1120	DT1112
DT1511	D40D4	ZT1700	PG5007
DT1512	D40D8	ZT2270	DT1521
DT1520	D40D1	DT1112	ZT1480
DT1521	D40D8	ZT2270	DT1512
DT1522	D40D8	ZT2270	DT1512
DTG110	AUY22	MP1612A	NKT403
DTG110A	AUY34	MP1612A	NKT402
DTG110B	AUY21	MP1612	NKT401
DTG600	AUY22	MP1612	NKT402
DTG601	AUY22	MP1612A	NKT403
DTG602	AUY34	MP1612A	NKT402
DTG603	AUY34	MP1612A	AU106
DTG1010	MP3731	2N5324	AU107
DTG1110	MP3730	2N908	AU108
DTG2100	AUY22	MP2200	NKT403
DTG2200	MP3618	2N1540	NKT403
DTG2300	MP2300	2N2146	NKT403
DTG2400	MP2400	2N2870	NKT402
DTS401	BU102	2N3902	2N2580
DTS402	BU102	2N3902	2N2581
DTS410	BUY18	2N3902	2N3080
DTS411	BU102	2N3902	2N2580
DTS413	BU102	2N902	2N2582
DTS423	BU102	2N3902	2N3582
DTS424	BU102	2N3902	2N2583
DTS425	BU102	2N3902	2N2583
DTS430	BU102	2N3902	2N2582
DW6208	BC107B	BC182B	MPS6566
DW6577	BC107	BC182	MPS6566
DW6737	BC107A	MPS6566	
DW7000	BF167	BF225	
DW7035	BC167B	BC171B	MPS6566
DW7039	BF110	BF178	BF156
DW7050	BF232	BF173	2SC454
E101	E201		
E102	E202		
E103	E203		
E300	C380		
EN697	2N697	BFY50	2N2297
EN706	2N706	BSX20	2N2369A
EN708	2N708	BSX20	2N2369
EN718A	2N718A	BC387	2N4401
EN722	2N722	BC328	2N5819
EN744	2N744	BSX20	2N2369
EN870	2N870	BSW66	2N1893
EN871	2N871	BSW66	2N1893
EN914	2N914	BSX20	2N2369
EN915	BFY34	2N2790	2N2221A
EN916	BFX60	2N916	2N2432A

TYPE No.	POSSIBLE SUBSTITUTES		
EN918	BFX59	2N918	2N3600
EN930	2N930	BC239	2N5827
EN956	2N956	BC338	2N5818
EN1132	2N1132	BFS95	2N4036
EN1613	2N1613	BFY50	2N2297
EN1711	2N1711	BFY50	2N2297
EN2219	2N2219	BSW54	2N2219A
EN2222	2N2222	Fx2222	BSx45
EN2369A	2N2369A	Fx2369A	2N3227
EN2484	2N2484	Fx2484	BC107
EN2894	BS x94	2N4313	2N4258
EN2894A	2N2894A	FX2894A	2N3566
EN2905	2N2905	BFS95	2N4036
EN2907	2N2907	FX2907	2N5819
EN3009	2N3009	BSY18	BSX20
EN3011	2N3011	2N2369	BSY63
EN3013	2N3013	Fx3013	BC107
EN3014	2N3014	Fx3014	2N2369
EN3250	BFX48	2N3250	BFX88
EN3502	2N3502	Fx3502	2N2905
EN3504	2N3504	2N2907	2N2989
EN3903	2N3903	FT3903	BF195
EN3904	2N3904	FT3904	BF194
EN3905	2N3905	FT3905	FX3905
EN3906	2N3906	FT3906	FX3906
EN3962	BC309	2N6003	
FM870	BCY15	BFY43	2N1889
FM871	BF140	BCY15	2N1890
FM910	BFY140	BCY15	2N1889
FM911	BF140	BCY15	2N1890
FM1613	BSY44	2N1613	2SC479
FM1711	BFY46	2N2219	2N3109
FM1893	BFY45	2N1973	2N1890
FPS6512	BD517	2N4307	2N5337
FPS6513	BD517	2N4307	2N5337
FPS6514	BC169	2N5210	SE4010
FPS6515	BC169	2N5210	SE4010
FPS6516	BC327	2N2904	EN2907
FPS6517	BC327	2N2904	EN2907
FPS6518	BC327	2N2904	EN2907
FPS6533	BC327	2N2904	EN2907
FPS6534	BC327	2N2904	EN2907
FPS6535	BC327	2N2904	EN2907
FPS6560	BC387	2N4401	2N5449
FPS6561	BC387	2N4401	2N5449
FPS6562	BC327	2N2904	EN2907
FPS6563	BC327	2N2904	EN2907
FPS6565	BC347A	2N2904	EN2907
FT34D	D42C8	PT612	SDT3326
FT107A	SE4022	FX107A	SE4021
FT107B	SE4021	FX107B	2N4022
FT107C	SE4020	FX107C	2N930
FT709	2N709	BSY18	BFY66
FT1746	BC177	2N3965	
FT2974	2N2974	2N2979	FT2978
FT2978	2N2978	2N2979	FT2974
FT3567	BFY34	2N2193	2N3725
FT3568	BFY46	2N3109	2N4409
FT3569	BFY34	2N2193	2N4047
FT3641	BFY34	2N2537	2N2224
FT3642	BFY34	2N2537	2N2224
FT3643	BFY46	2N2538	2N2219
FT3905	BSW24	2N2907A	
FT3906	BSW24	2N2907A	
FT4017	2N4017	2N3350	2N3351
FT4018	2N4018	2N3350	FT4017

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TYPE No.	POSSIBLE SUBSTITUTES		
FT4019	2N4019	2N3350	FT4018
FT4020	2N4020	2N3350	FT4017
FT4021	2N4021	2N3350	FT4020
FT4022	2N4022	2N3350	FT4021
FT4023	2N4023	2N3350	FT4022
FT4024	2N4024	2N3350	FT4023
FT4025	2N4025	2N3350	FT4024
FT4354	BFW20	2N3485	2N4030
FT4355	BFW23	2N3486	2N4032
FT4356	BFX41	2N4236	2N4031
FT5040	BSX36	2N3467	2N3905
FT5041	BSX36	2N3467	2N3905
GET102	AC150		
GET103	AC150	2SB415	
GET104	AC150	2N506	
GET106	AC165	2N2429	2SB415
GET111	NKT227	ASY51	
GET113	A150	2N506	2SB415
GET114	A150	2N506	2SB415
GET535	ASY48	2N1189	2SB89
GET538	ASY48	2N1189	2SB89
GET571	NKT401	2N174	
GET572	NKT401	2N174	
GET573	NKT401	2N174	
GET870	NKT142	ASY55	2N1193
GET871	NKT142	ASY55	2N1193
GET872	NKT142	ASY55	2N1193
GET873	NKT142	ASY55	2N1193
GET874	NKT142	ASY55	2N1193
GET875	NKT142	ASY55	2N1193
GET880	NKT216	ACY29	ASY27
GET881	NKT211	2N1305	2SB415
GET882	NKT211	2N1305	2SB415
GET885	NKT125	ASY58	2N1309
GET887	NKT129	ASY54	ASY48
GET888	NKT127	ASY55	TF49
GET889	NKT128	ASY54	ASY27
GET890	NKT127	ASY55	GET888
GET891	NKT126	ASY57	2G303
GET892	NKT125	ASY58	2G304
GET895	NKT211	2N1305	2SB415
GET896	ASY27	ACY29	NKT216
GET897	NKT142	OC44N	2N2614
GET398	NKT141	OC44N	2N2614
GET914	BSX48	2N2369	2SC857
GET2221	BSX49	2N2222A	
GET2222	BSX49	2N2222A	
GET2369	BSX48	2N2369	2SC857
GET3013	BSX48	2N2369	2SC857
GET3014	BSX48	2N2369	2SC857
GET3638	BSX29	2N2907	2N2906
GET3638A	BSX29	2N2907	2N2906
GET3646	BSX49	2N2222A	
GFT20	AC151	2N5040	NKT219
GFT21	AC151	2N5040	NKT219
GFT25/15	AC151	2N5040	NKT219
GFT25/30	AC151	2N1193	NKT219
GFT32/15	AC152	2N5041	NKT211
GFT32/30	AC152	2N5041	NKT219
GFT33/30	AC152	2N5041	NKT211
GFT34	AC153	2N5041	NKT211
GFT41	AF106	2N2273	NKT603F
GFT42A	AF124	2N4917	NKT674F

TYPE No.	POSSIBLE SUBSTITUTES		
GFT42B	AF125	2N4916	NKT674F
GFT43A	AF126	2N4917	NKT674F
GFT43B	AF127	2N1748	NKT613F
GFT43/15	AC152	2N5041	NKT219
GFT44	AF127	2N4916	NKT674F
GFT45	AF127	2N4916	NKT613F
GFT2006/30	AD149	2N178	NKT451
GFT3008/20	AD131	MP1530	NKT405
GFT3008/80	AD132	MP1531	NKT403
GFT3108/40	AD130	MP1529	NKT451
GFT3108/60	AD131	MP1530	NKT405
GFT3108/8	AD132	MP1531	NKT403
GFT3408/20	AD130	MP1529	NKT403
GFT3408/40	AD131	MP1530	NKT405
GFT3408/60	AD131	MP1530	NKT405
GFT3408/80	AD132	MP1531	NKT403
GFT3708/20	AD130	MP1529	NKT451
GFT3708/40	AD131	MP1530	NKT405
GFT3708/60	AD131	MP1530	NKT405
GFT3708/80	AD132	MP1531	NKT405
GFT4012/30	AD130	MP1529	NKT405
GFT4012/60	AD131	MP1530	NKT405
GFT4112/30	AD130	MP1529	NKT451
GFT4112/60	AD130	MP1529	NKT451
GFT4308/40	AD130	MP1529	NKT451
GFT4308/60	AD131	MP1530	NKT405
GFT4308/80	AD132	MP1531	NKT405
GFT4412/30	AD130	MP1529	NKT451
GFT4412/60	AD131	MP1530	NKT451
GFT4608/60	AD131	MP1530	NKT403
GFT4712/30	AD130	MP1529	NKT405
GI2711	BC207A	MPS2711	2N3691
GI2712	BC208A	MPS2712	2N3692
GI2713	BCY58A	MPS2713	2N4275
GI2714	BCY58B	MPS2714	2N4275
GI2715	BC207A	MPS2715	2N3691
GI2716	BC208A	MPS2716	2N3692
GI2921	BCY58A	MPS2921	2N2921
GI2922	BCY58A	MPS2922	2N2922
GI2923	BC108A	MPS2923	2SC458
GI2924	BC108A	MPS2924	2SC458
GI2925	BC108B	MPS2925	2SC458
GI2926	BC108C	MPS2926	2SC458
GI3392	BC207A	MPS3392	2N3392
GI3638	BCY79A	MPS3638	2N3638
GI3641	BFY34	MPS6530	2N3641
GI3642	BFY46	MPS6530	2N3642
GI3644	BSV16-16	2N2905	2N5449
GI3702	BC327	2N5819	2N3602
GI3703	BC327	2N5819	2N3703
GI3704	BC140	MPS3704	2N3704
GI3705	BC140	MPS3705	2N3705
GI3706	BC140	MPS3706	2N3706
GI3707	BC301	MPS3707	2N3707
GI3708	BC301	MPS3708	2N3708
GI3709	BC301	MPS3709	2N3709
GI3710	BC301	MPS3710	2N3710
GI3711	BC301	MPS3711	2N3711
GI3793	BSY19	MPS3710	2N3710
GI3794	BSY19	MPS2710	2N2710
GM290A	BSW25	2N4922	2N3546
GM378A	AFY16	2N4922	2N6122
GM656A	BSW25	2N4922	2N3546
GMO290	AF139	2N3323	2N2242
GMO290A	AF139A	2N3323	2N2242

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POSSIBLE SUBSTITUTION GUIDE

TYPE No.	POSSIBLE SUBSTITUTES		
GMO760	AF106	M9031	2SA230
GMO761	AF106	M9031	2SA230
GS300	L14A502		
GS302	L14A502		
GS370	L14A502		
GS372	L14E3		
GS470	L14A502		
GS670	L14A502		
GT20	AC128	OC72	2N2431
GT34N	ASY48	2N5022	NET216
GT40	NKT142	2N466	2SB219
GT41	NKT142	2N466	2SB219
GT42	NKT142	2N466	2SB219
GT43	ASY55	2N1193	2SB227
GT44	ASY55	2N1193	2SB227
GT45	ASY55	2N1193	2SB227
GT46	2G302	AC126	2N1193
GT47	2G302	AC126	2N1193
GT74	AC126	2N2429	GT81
GT81	AC126	2N2429	2N2431
GT109	AC128	OC72	2N2431
GT122	AC125	OC76	2N2429
GT123	ASY26	2N2927	NKT135
GT167	AC186	2N2430	NKT717
GT222	AC125	OC71	2N2429
GT229	AC186	2N2430	NKT717
GT758	AC151	2N5040	NKT223
GT792	AC186	2N2430	NKT717
GT904	AC186	2N2430	NKT713
GT948	AC186	2N2430	NKT717
GT949	AC125	AF126	GT222
GT1604	AC151	2N5040	NKT223
GT1605	ASY26	2N5040	NKT210
GT1607	AF125	2N4916	NKT674F
GT1608	AC186	2N2430	NKT674F
GT1609	AC186	2N2430	NKT674F
GT5116	AF125	2N2273	NKT613F
GT5117	AF186	2N2430	NKT674F
GT5148	AF125	2N3324	NKT674F
GT5149	AF106	2N4916	NKT613F
GT5151	AC153	2N5022	NKT229
GT5153	AC153	2N5022	NKT217
KF2000	ASY48	2N5022	NKT217
KF2001	ACY39	2N5151	2N398
KF2002	ASY48	2N5022	NKT217
KF2003	ACY39	2N5151	2N398
KJ2001	AUY22	MP1551	NKT401
KJ2002	AUY34	MP1552	NKT403
KJ2003	AUY22	MP1551	NKT401
KJ2004	AUY34	MP1552	NKT403
KM7000	AD149	2N2143A	NKT406
KM7007	AD149	2N2142A	NKT406
KM7008	AD134	2N2138	NKT406
KM7009	AD135	2N2139	NKT401
KM7010	AD163	2N2140	NKT420
KM7011	AD133	2N2143	NKT404
KM7012	AD134	2N2144	NKT404
KM7013	AD135	2N2145	NKT403
KM7014	AD163	2N2146	NKT420
KM7015	AD131	2N1540	NKT402
KM7016	AD135	2N1541	NKT403
KM7017	AD163	2N1542	NKT430
LDA400	BC208	MPS6575	NKT10339
LDA401	BC208	MPS6575	NKT10439
LDA402	BC208	MPS6575	NKT10439
LDA403	BC208	MPS6575	NKT10439
LDA404	BFX67	2N1613	2N697

TYPE No.	POSSIBLE SUBSTITUTES		
LDA405	BFX68	2N1711	2N956
LDA406	BSV89	MM1501	NKT16229
LDA407	BSV90	MM1500	NKT16229
LDA410	BSV92	MM8001	NKT10439
LDA450	BC291D	MPS3703	NKT20339
LDA451	BC291A	MPS2702	NKT20329
LDA452	BC291C	MPS3703	NKT20339
LDA453	BC291A	MPS3702	NKT20339
LDS200	BFX89	2N2368	NKT16229
LDS201	BSY19	2N2369	NKT16229
LDS205	BSY19	2N2369	NKT16229
LDS207	BSY19	2N2368	NKT16229
MA201	MA201	MA204	MA203
MA200	MA202		
MA201	MA201	MA204	MA203
MA202	MA200		
MA203	MA20H	MA203	MA201
MA204	MA201	MA203	MA205
MA205	MA204	MA201	MA203
MA206	MA205	MA203	MA201
MA0401	BFX29	2N4405	2SA537
MA0402	BFX29	2N4405	2SA537
MA0404	BSW24	2N2906	2N2907
MA0411	BC350	2N3703	2SA565
MA0412	BC350	2N3703	2SA565
MA0413	BC350	2N3703	2SA565
MA0414	BC350	2N3703	2SA565
MA0461	BSW24	2N4405	2SA537
MA0462	BSW24	2N4405	2SA537
MA0463	BSW24	2N4405	2SA537
MA0491	BSW24	2N4405	2SA537
MA0492	BSW24	2N4405	2SA537
MA0493	BSW24	2N4405	2SA537
MA881	MA882	MA883	MA884
MA882	MA883	MA884	
MA883	MA884	MA882	MA889
MA884	MA889	MA883	MA888
MA885	MA881	MA886	MA887
MA886	MA887	MA888	MA889
MA887	MA888	MA889	MA886
MA888	MA889	MA886	MA887
MA889	MA884	MA883	MA888
MA909	MA910		
MA910	MA909		
MA1703	MA1704	MA1705	
MA1704	MA1705	MA1703	
MA1706	MA1707	MA1708	
MA1707	MA1708	MA1706	
MA4101	BC347	2N3568	2SC458
MA4102	BC319	MPS6521	
MA4103	BC319	MPS6521	
MA4104	BC347	2N3568	2SC458
MA6001	BSX49	2N2222A	D40D1
MA6002	BSX49	2N2222A	D40D1
MA6003	BSX49	2N2222A	D40D1
MA6101	BSY34	2N2219A	2SC479
MA6102	BSY34	2N2219A	2SC479
MA8001	BSX46	2N2193	2SC708
MA8002	BFY56	2N3019	2N3712
MA8003	BSX46	2N2193	2SC708
MA9001	BSX48	2N2369	2SC857
MA9002	BSX48	2N2369	2SC857
MA9003	BSX48	2N2369	2SC857
MD420	ACY120	2N5040	NKT211
ME213	BDY59A	2N4401	NKT10439
ME213A	BDY59A	2N4401	NKT10339
ME216	BDY58A	2N4401	NKT12329

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TYPE No.	POSSIBLE SUBSTITUTES		
ME217	BD168A	2N5447	NKT12429
MEO404	BC328	2N5447	NKT20329
MEO404-1	BC327	2N5448	NKT20339
MEO404-2	BC327	2N5447	NKT20339
MEO411	BC30701	BC204	2N4249
MEO412	BC307A	BC206	2N4250
MEO413	BSX36	2N3307	NKT20339
MEO414	BC157	BC251	2SA564
MEO461	BC291D	2N4124	2N3250
MEO462	BC291A	2N4143	2N3251
MEO463	BSX36	2N3703	NKT20339
MEO475	BSX36	2N3702	NKT20329
MEO491	BSY40	2N4236	2N4031
MEO492	BSY41	2N5448	MPS3703
MEO493	BSY41	2N5448	2N2894
ME501	BC160	2N1136	MM3726
ME502	BC160	2N1136	MM3726
ME503	BC160	2N1136	MM3726
ME511	BC327	2N4236	2N4031
ME512	BC327	2N4236	2N4356
ME900	BSY63	2N3137	NKT10339
ME901	BSX48	2N3227	NKT10429
ME1001	BSX45-6	BSX95	2N2297
ME1002	BSX45 16	BSX96	2N3109
ME1075	BF380	2N1990	2SC856
ME1100	BF297	2N3114	MPSA43
ME1120	BF380	2N311	2SC856
ME2001	BFX62	2N929	NKT10339
ME2002	BFX59	2N3565	NKT10439
ME3001	BFX59	2N2011	NKT16229
ME3002	BFX59	2N3011	NKT16229
ME3011	BFX59	2N3011	NKT16229
ME4001	BC208	2N3706	NKT10419
ME4002	BC168B	2N3706	NKT10439
ME4003	BC208	MPS6574	NKT10519
ME4101	BC167A	2N3705	MPS3705
ME4102	BC167B	MPS3706	2N3706
ME4103	BC167C	MPS3706	2N3706
ME4104	BC107	BC182	TIS98
ME5001	BFX55	MPS3693	NKT16229
ME6001	BSX48	2N3706	NKT10439
ME6002	BSX48	2N3706	NKT10439
ME6003	BSY63	2N2360	NKT10439
ME6101	BFY34	2N697	2N2410
ME6102	BFY46	2N1711	2N3109
ME8001	BSX49	2N5450	2N2410
ME8002	BFY14B	2N1893	2N911
ME8003	BFY46	2N1711	SE8012
ME8101	BSY19	2N4264	2N5187
ME8201	BSX29	2N3576	2N5055
ME9001	BFW68	2N2432A	2N3261
ME9002	BSX92	2N3645	2N3011
ME9003	BSX20	2N2369	
ME9021	BSW92	2N3846	2N3009
ME9022	BSV89	2N3706	2N2369
MHT5501	2N4300	MHT5502	MHT5503
MHT5502	2N4300	MHT5501	MHT5503
MHT5503	2N4300	MHT5502	MHT5501
MHT5504	2N4300	MHT5501	MHT5502
MHT5505	2N4300	MHT5501	MHT5502
MHT5506	2N4300	MHT5501	MHT5502
MHT5507	2N4300	MHT5501	MHT5502
MHT5508	2N4300	MHT5507	MHT5506
MHT6408	2N3996	MHT6409	MHT6410
MHT6409	2N3996	MHT6408	MHT6410

TYPE No.	POSSIBLE SUBSTITUTES		
MHT6410	2N3996	MHT6416	MHT6409
MHT6411	2N3996	MHT6410	MHT6412
MHT6412	2N3996	MHT6410	MHT6411
MHT6413	2N3996	MHT6411	MHT6412
MHT6414	2N3996	MHT6413	MHT6412
MHT6415	2N3996	MHT6413	MHT6414
MHT6416	2N3996	MHT6414	MHT6415
MHT7011	2N4301	MHT7012	MHT7013
MHT7012	2N4301	MHT7011	MHT7013
MHT7013	2N4301	MHT7011	MHT7012
MHT7014	2N4301	MHT7012	MHT7013
MHT7015	2N4301	MHT7013	MHT7014
MHT7016	2N4301	MHT7014	MHT7015
MHT7017	2N4301	MHT7015	MHT7016
MHT7018	2N4301	MHT7016	MHT7017
MHT7019	2N4301	MHT7017	MHT7018
MHT7401	2N3421	MHT7402	MHT7403
MHT7402	2N3421	MHT7401	MHT7403
MHT7403	2N3421	MHT7401	MHT7402
MHT7411	2N3421	MHT7412	MHT7413
MHT7412	2N3421	MHT7411	MHT7413
MHT7413	2N3421	MHT7411	MHT7412
MHT7414	2N3421	MHT7413	MHT7411
MHT7415	2N3421	MHT7414	MHT7412
MHT7416	2N3421	MHT7415	MHT7411
MHT7417	2N3421	MHT7416	MHT7415
MHT7418	2N3421	MHT7417	MHT7411
MHT7419	2N3421	MHT7418	MHT7417
MHT7801	2N5387	MHT7802	MHT7803
MHT7802	2N5387	MHT7801	MHT7804
MHT7803	2N5387	MHT7801	MHT7802
MHT7804	2N5387	MHT7802	MHT7803
MHT7805	2N5387	MHT7803	MHT7801
MHT7806	2N5387	MHT7801	MHT7802
MHT7807	2N5387	MHT7804	MHT7806
MHT7808	2N5387	MHT7804	MHT7806
MHT7809	2N5387	MHT7808	MHT7804
MHT8002	2N4002	MHT8003	MHT9001
MHT8003	2N4002	MHT8002	MHT9002
MHT9001	2N4002	MHT9002	MHT9003
MHT9002	2N4002	MHT9001	MHT9003
MHT9003	2N4002	MHT9002	MHT9001
MHT9004	2N4002	MHT9002	MHT9003
MHT9005	2N4002	MHT9004	MHT9003
MHT9006	2N4002	MHT9004	MHT9005
MHT9007	2N4002	MHT9006	MHT9005
MHT9008	2N4002	MHT9005	MHT9001
MHT9009	2N4002	MHT9004	MHT9007
MHT9010	2N4002	MHT9008	MHT9005
MHT9011	2N4002	MHT9009	MHT9007
MHT9012	2N4002	MHT9008	MHT9007
MJ400	D44R4		
MJ420	D40N1	TRS40HP	TRS160HP
MJ421	D40N4		
MJ423	BDY96	MJ431	
MJ431	BDY96	MJ423	
MJ450	2N4398		
MJ480	2N4913		
MJ481	2N4914		
MJ490	2N4904		
MJ491	2N4905		
MJ1800	BDY96	MJ431	MJ423
MJ2249	D44C8	MJ2250	PT665
MJ2250	MJ2249	MJ2249	PT665
MJ2251	D44R1	MJ2252	MJ3201
MJ2252	D44R3	MJ2251	BD144

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TYPE No.	POSSIBLE SUBSTITUTES		
MJ2253	D45C8	MJ2254	
MJ2254	MJ2253	D45C8	SDL445
MJ2267	2N4901	MJ2940	
MJ2268	2N4902		
MJ2801	2N3713		
MJ2940	2N4901	MJ2267	
MJ3010	MJ3011		
MJ3011	MJ3010		
MJ3029	BDY95		
MJ3101	D44C5	SDT6011	SDT6031
MJ3201	D44R1	MJ2251	MJ2252
MJ3202	D44R3	BD144	MJE340
MJ3701	D45C5	STC5202	TIP32
MJ8100	D43C8	SDT3322	MM3726
MJE101	BD276		2N6126
MJE102	BD276		2N6126
MJE103	BD276		2N6126
MJE104	BD276		2N6126
MJE105	D45C8	BD132	TIP34A
MJE170	BD140	2N4920	2N6126
MJE171	BD140	2N4920	2N6126
MJE172	BD140	2N4920	2N6126
MJE180	BD139	2N4923	2N2102
MJE181	BD139	2N4923	2N2102
MJE182	BD139	2N4923	2N2102
MJE200	BD237	2N4923	2N2102
MJE201	BDX72	2N6100	
MJE202	BDX72	2N6100	
MJE203	BDX72	2N6100	
MJE204	BDX72	2N6100	
MJE205	D44C8	BD131	TIP33
MJE210	BD231	2N4920	2N6126
MJE220	BD230	2N4923	2N6123
MJE221	BD230	2N4923	2N6123
MJE222	BD230	2N4923	2N6123
MJE223	BD230	2N4923	2N6123
MJE224	BD230	2N4923	2N6123
MJE225	BD230	2N4923	2N6123
MJE230	BD231	2N4920	2N6126
MJE231	BD231	2N4920	2N6126
MJE232	BD231	2N4920	2N6126
MJE233	MJE220	BD231	2N6126
MJE234	MJE220	BD231	2N6126
MJE235	MJE220	BD231	2N6126
MJE240	MJE220	BD230	2N6123
MJE241	MJE240	BD230	2N6123
MJE242	MJE240	BD230	2N6123
MJE243	MJE240	BD230	2N4927
MJE244	MJE240	2N4923	2N6123
MJE250	MJE240	BD231	2N6126
MJE251	MJE240	BD231	2N6126
MJE252	MJE240	BD231	2N6126
MJE253	MJE240	BD231	2N6126
MJE254	MJE240	BD231	2N6126
MJE340	D44R3	BD144	MJE3440
MJE341	D44R2	MJE344	MJE521
MJE344	D44R2	MJE341	MJE521
MJE370	D45C2	TIP32	2N6124
MJE371	D45C5	TIP32	2N6124
MJE520	D44C2	TIP31	2N6121
MJE521	D44C5	TIP31	2N6121
MJE701	MJE700		
MJE702	MJE700		
MJE703	MJE700		

TYPE No.	POSSIBLE SUBSTITUTES		
MJE711	MJE710		
MJE712	MJE700		
MJE720	BD139	2N6123	
MJE721	MJE710	BD139	2N6123
MJE722	MJE710	BD139	2N6123
MJE800	MJE700		
MJE801	MJE700		
MJE802	MJE700		
MJE803	MJE700		
MJE1091	MJE1090		
MJE1092	MJE1090		
MJE1093	MJE1090		
MJE1100	MJE1090		
MJE1101	MJE1090		
MJE1102	MJE1090		
MJE1103	MJE1090		
MJE1290	BD600	2N6134	
MJE1291	MJE1290	2N2102	2N6134
MJE1660	MJE1290	2N6102	2N2102
MJE1661	MJE1290	BDX74	2N6103
MJE2010	BC590	2N6126	
MJE2011	MJE2010	BC590	2N6126
MJE2020	MJE2010	BDX74	2N6102
MJE2021	MJE2010	BDX74	2N6102
MJE2360			2N6177
MJE2361			2N6177
MJE2370	BD590	2N6126	
MJE2371	BD590	2N6126	
MJE2480		BDX74	2N6102
MJE2481	MJE2480	BDX74	2N6102
MJE2482	MJE2480	BDX74	2N6102
MJE2483	MJE2480	BDX74	2N6102
MJE2490		2N6126	
MJE2520	BD275		
MJE2521	MJE2520	BD589	
MJE2522	MJE2520	BD589	
MJE2523	MJE2520	BD589	
MJE2801	MJE1660	2N6103	
MJE2901	TIP34	MJE2955	BD246
MJE2956	TIP34	MJE2901	BD246
MJE3054	BD275		
MJE3055	AM291	2N3055	TIP33A
MJE3370	BD276	2N6126	
MJE3371	BD276	2N6126	
MJE3439	BD215	BD158	2N6177
MJE3440	D33R3	BD144	MJE340
MJE3521	BD275	MJE3520	
MJE3738	BD215	BD158	2N6177
MJE3739	BD215	BD158	2N6177
MJE3740	BD276	2N6126	
MJE3741	BD276	2N6126	MJE3740
MJE4918	BD276	2N4918	
MJE4921	BD275	2N4918	
MJE4922	BD275		
MJE4923	BD275		
MJE5190	BDX74	2N6102	
MJE5191	BDX74	2N6102	
MJE5192	BD275		
MJE5193	BD276	2N6126	
MJE5155	BD215		2N6177
MJE5656	BD215	BD158	2N6177
MJE5657	BD215	BD158	2N6177
MJE5977	BDX74	2N6103	2N6102
MJE5978	BDX75	2N6102	
MJE5979	BDX74	2N6102	

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TYPE No.	POSSIBLE SUBSTITUTES		
MJE5983	BDX74	2N6102	
MJE5984	MJE1660	2N6103	
MJE5985	BDX74	2N6102	
MM380	AFY16	2N5056	2N3307
MM709	BSY17	2N744	NKT35219
MM1139	AFY16	2N5057	2N3307
MM1619	D44C1	PT5693	XB475
MM1755	BFY34	2N697	2N3642
MM1756	BFY46	2N956	2N3643
MM1757	BFY34	2N1613	2N3642
MM1758	BFY46	2N1711	2N3643
MM1803	D40D1	MT1070	PT3503
MM1812	D40N1	TRS140HP	TRS160HP
MM1941	BFX59	2N744	NKT16229
MM2258	D44R2	MJE344	MJE521
MM2259	D44R2	MJE344	MJE521
MM2260	D44R2	MJE344	MJE521
MM2261	D40D7	MM3725	
MM2483	BFY34	2N2791	2N929
MM2484	BFY46	2N2792	2N930
MM3001	D44R1	MPS15	MSP20
MM3002	D40N1	TRS140HP	TRS160HP
MM3003	D40N3	TRS301HP	
MM3004	D40D1	MT1070	PT3503
MM3008	D44R2	MJE344	MJE521
MM3009	D44R2	MJE344	MJE521
MM3724	D40D1	MT1070	PT3503
MM3725	D40D7	MM2261	
MM3726	D43C8	SDT3322	MJ8100
MM4019	D41D4		
MM4020	D45C3		
MM5000	AFY39	2N5057	2N3307
MM5001	AFY42	2N5057	2N3307
MM5002	AFY42	2N5057	2N3307
MM8000	BFX59	2N2839	NKT16229
MM8001	BSY63	2N2839	NKT16229
MM8002	BSY63	2N2839	NKT16229
MP500	MP504		
MP501	MP505		
MP502	MP506		
MP504	MP500		
MP505	MP501		
MP506	MP502		
MP939	AU103	2N1906	
MP1529	AUY21	2N1359	2N511
MP1530	AUY22	2N375	2N511A
MP1531	AUY34	2N375	2N511B
MP1532	AUY34	2N1362	2N63D
MP1533	AUY34	2N1354	2N1533
MP1534	AUY21	2N1539	2N677
MP1535	AUY22	2N1540	2N677A
MP1536	AUY34	2N1541	2N677B
MP1537	AUY34	2N1542	2N677C
MP1538	AUY34	2N1543	2N1365
MP1549	AUY21	2N513	2N678
MP1550	AUY22	2N513A	2N678A
MP1551	AUY34	2N513B	2N678B
MP1552	AUY34	2N1100	2N678C
MP1553	AUY21	2N277	2N677
MP1554	AUY22	2N278	2N677A
MP1555	AUY34	2N1099	2N677B
MP1556	AUY34	2N1100	2N677C

TYPE No.	POSSIBLE SUBSTITUTES		
MP1557	AUY21	2N4278	2N1032
MP1558	AUY22	2N4279	2N1032A
MP1559	AUY34	2N4281	2N1032B
MP1560	AUY34	2N2300	2N1032C
MP1612	MP1612A	MP1612B	
MP1612A	MP1612B	MP1612	
MP1612B	MP1612A	MP1612	
MP2060 pr	MP2061	MP2062	
MP2061 pr	MP2062	MP2060	
MP2062 pr	MP2063		
MP2063 pr	MP2062		
MP8111	D44C8	MJ2250	PT665
MP8112	D44C8	MJ2250	PT665
MP8113	BD139	TIP29	2N4923
MP8121	BD139	TIP29	2N4923
MP8122	BD139	TIP29	2N4923
MP8123	BD139	TIP29	2N4923
MP8211	D44C5	TIP31	2N6121
MP8212	D44C6	SDJ345	SDK4345
MP8213	BDY13	BUY46	2N3054
MP8221	D44C5	TIP31	2N6121
MP8222	D44C6	SDJ345	SDK4345
MP8223	BDY13	BUY46	2N3054
MP8511	BD140	2N4920	2N6126
MP8512	BD140	2N4920	2N6126
MP8513	BD140	2N4920	2N6126
MP8521	BD140	2N4920	2N6126
MP8522	BD140	2N4920	2N6126
MP8523	BD140	2N4920	2N6126
MP8611	BDX14	2N3740	2N3741
MP8612	BDX14	2N3740	2N3741
MP8613	BDX14	2N3740	2N3741
MP8621	BDX14	2N3741	2N3741
MP8622	BDX14	2N3741	2N3740
MP8623	BDX14	2N3741	2N3740
MPF102	E304		
MPF103	E305		
MPF104	E304		
MPF105	E304		
MPF106	E305		
MPF107	E304		
MPF108	E304		
MPF109	E304		
MPF111	E202		
MPF112	E304		
MPF122	BF256	TIS34	MJ2901
MPF161	E270		
MPF820	E300		
MPS404	BC350	2N3904	
MPS404A	BC350A	2N3904	
MPS706	2N5772	2N4270	MPS706A
MPS706A	2N5772	2N4275	MPS706
MPS834	2N5772	2N4275	MPS706
MPS918	TIS62	2N5770	EN918
MPS2369	2N5770	2N4275	TIS62
MPS2711	2N2711	2N5135	2N3691
MPS2712	2N2712	2N5135	2N3692
MPS2713	2N2713	2N5135	2N4275
MPS2714	2N2714	2N5135	2N4275
MPS2715	MPS2711	2N5135	2N3691
MPS2716	MPS2712	2N5135	2N3692
MPS2921	BCY58	2N5225	NKT10519
MPS2922	BDY58A	2N5225	NKT10419

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TYPE No.	POSSIBLE SUBSTITUTES		
MPS2923	TIS99	2N2923	2N5135
MPS2924	TIS98	2N2924	2N5135
MPS2925	TIS98	2N3565	2N2924
MPS2926	2N3691	2N3692	MPS6512
MPS3390	BC349A	BC169	MPS6521
MPS3391	BC349B	BC169	MPS6521
MPS3391A	BC349L	BC169	MPS6521
MPS3392	2N3392	SE6002	EN4124
MPS3393	2N3393	SE6002	SE1001
MPS3394	2N4123	EN4123	TIS99
MPS3395	2N3395	SE6002	BC172
MPS3396	MPS3397		
MPS3397	MPS3396		
MPS3398	BC168	2N3708	NKT10519
MPS3563	TIS62	2N3563	TIS62
MPS3638	2N5354	2N3638	2N5356
MPS3638A	2N5355	2N3638A	2N5447
MPS3639	2N3639	TIS53	BSW25
MPS3640	2N3640	TIS554	2N3546
MPS3646	2N3646	2N4422	2N2369
MPS3693	2N3826	2N3903	2N4994
MPS3694	2N3827	2N3904	2N4995
MPS3702	EN3638A		
MPS3703	2N3638	2N5447	BC307
MPS3704	2N3704	2N3566	BC140
MPS3705	2N3705	2N3566	BC140
MPS3706	2N3706	2N3566	BC140
MPS3707	2N3707	SE4010	SE4124
MPS3708	2N3708	EN4123	EN4124
MPS3709	2N3709	EN4123	BC147A
MPS3710	2N3710	EN4124	BC171
MPS3711	2N3711	EN3904	2N3565
MPS3721	BC239	2N5449	NKT10519
MPS3826	BC517	2N5086	
MPS3827	BC169	2N5210	
MPS4354	BC347	2N3903	
MPS4395	BC347	2N3903	
MPS4356	BC347	2N2903	
MPS5172	2N2124	2N4002	2N3903
MPS6507	TIS86	2N4996	2N5770
MPS6511	TIS87	SE3005	FPS6511
MPS6512	TIS99	2N4123	2N4124
MPS6513	TIS99	EN4124	FPS6513
MPS6514	BC207	TIS98	FPS6514
MPS6515	BC207	TIS97	FPS6515
MPS6516	2N5447	EN3905	FPS6516
MPS6517	2N5447	EN3905	FPS6517
MPS6518	2N5447	EN3906	FPS6518
MPS6519	2N5447	EN126	FPS6519
MPS6520	TIS98	SE4020	FPS6520
MPS6521	TIS97	SE4020	FPS6521
MPS6522	2N5447	EN4126	FPS6522
MPS6523	2N5447	EN4126	FPS6523
MPS6530	TIS92	2N4944	FPS6530
MPS6531	TIS92	2N4946	FPS6531
MPS6532	BC237A	TIS92	2N3566
MPS6533	BC177	TIS93	2N3644
MPS6533M	FPS6533M	BC388	2N4403
MPS6534	BC177A	TIS93	MPS6534M
MPS6534M	FPS6534M	BC388	2N4403
MPS6535	BC177	TIS93	MPS6635M
MPS6535M	FPS6535M	BC388	2N4403
MPS6539	BFX59	2N4875	NKT16229
MPS6540	PES5030B	SE5030B	FPS6540
MPS6541	TIS86	2N4996	MPS6543

TYPE No.	POSSIBLE SUBSTITUTES		
MPS6542	TIS62	PE5030B	SE6030B
MPS6543	TIS86	PE5030B	SE5030B
MPS6544	TIS87	PE5030B	FPS6544
MPS6545	TIS87	PE5030B	SE5030B
MPS6546	TIS86	PE5030B	SE5030B
MPS6547	TIS86	PE5030B	SE5030B
MPS6548	BFX59	2N4875	NKT16229
MPS6551	BC338	2N5451	2N3706
MPS6552	TIS98	SE4020	FPS6520
MPS6553	TIS97	SE4020	FPS6521
MPS6554	TIS97	SE4020	FPS6521
MPS6555	TIS97	SE4020	FPS6521
MPS6560	TIS92	SE6560	FPS6560
MPS6561	TIS92	SE6561	FPS6561
MPS6562	TIS93	SE6562	FPS6562
MPS6563	TIS93	SE6563	FPS6663
MPS6564	2N4994	BC347A	2N3903
MPS6565	TIS99	EN3903	FPS6565
MPS6566	TIS98	EN3904	FPS6566
MPS6567	TIS86	PE5030B	SE5030B
MPS6568	FPS6568		
MPS6569	FPS6569		
MPS6570	FPS6570		
MPS6571	SE4020	FPS6571	MPSA09
MPS6590	MPSA06		
MPS6591	MPSA05		
MPSA05	2N3404	2N5856	2N3416
MPSA06	BC337	2N2222	2N2645
MPSA09	2N5209	SE4020	MPS6571
MPSA10	MPSA20	2N3903	2N3693
MPSA13	FPSA13		
MPSA14	FPSA14		
MPSA16	BC169	2N5210	
MPSA17	BFY90	2N2857	
MPSA18	BC169	2N5210	
MPSA20	2N3903	MPSA20	2N3693
MPSA55	2N6011	2N5857	2N2905A
MPSA56	2N5857	2N3645	2N2905A
MPSA65	FPSA65		
MPSA66	FPSA66	MPSA65	
MPSA70	2N3905	2N3693	MPSA20
MPSH10	2N5770	SE3002	SE3005
MPSH11	2N5770	SE3002	SE3005
MPSH32	PE5010	SE5056	
MPSH37	PE5030B	SE5030B	
MPSL01	2N5831		
MPSL07	2N5771		
MPSL08	2N5771		
MPSL51	2N4889		
MPSU01	D40D2	BD169	2N4923
MPSU02	D40D5	SDT4455	PG5005
MPSU03	D44R1-4	BD232	
MPSU04	D44R1-4	BD232	
MPSU05	D40D8	BD137	PG5019
MPSU06	BD139	SD345	2N4923
MPSU07	BD230	2N6123	TIP29A
MPSU10	D40N3	TRS301HP	MM3003
MPSU51	D41D2	BD140	2N4920
MPSU52	D41D5	BD140	2N4920
MPSU55	D41D8	BD238	2N4920
MPSU56	BD231	2N6126	TIP30
MPSU57	BD231	2N6162	TIP30
MPU131	2N6027		
MPU132	2N6028		
MPU133	2N6028		

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TYPE No.	POSSIBLE SUBSTITUTES		
MRD200	L15A600		
MRD210	L15A600		
MRD250	L15A600		
MRD310	L14A502		
MRD600	L15A600		
MRD810	L15A600		
MRD3050	L14A502		
MRD3051	L14A502		
MRD3052	L14A502		
MRD3053	L14A502		
MRD3054	L14A502		
MRD3055	L14A502		
MRD3056	L14A502		
MSA7505	D44C1	PT5693	XB476
MSA8505	D44C1	PT5693	XB476
MSP15	D44R1	MM3001	MSP20
MSP20	D44R1	MM3001	MSP15
MSP25	D44R1	MM3001	MSP20
MST15	D44R1	MM3001	MSP25
MST20	D44R1	MM3001	MST15
MST25	D44R1	MM3001	MST20
MST30	D44R3	BD144	MJE3440
MST30B	D44R3	BD144	MST30
MST30S	D44R4		
MT1070	D40D1	MT1070	PT3503
MU4891	2N2646	MU4892	TIS43
MU892	2N2646	MU4891	TIS43
MU4893	2N2647	MU4894	2N3980
MU4894	2N2647	MU4893	2N3980
NKT4	OC44	2N1193	
NKT5	OC44	2N1193	
NKT11	AC151	2N5040	2N1384
NKT12	AC151	2N5040	2N1384
NKT24	ASY32	2N466	2SB219
NKT25	ASY32	2N466	2SB219
NKT32	OC44	2N1193	2SB227
NKT33	OC44	2N1193	2SB227
NKT42	OC44	2N1193	2SB227
NKT43	OC44	2N1193	2SB227
NKT52	OC44	2N1193	2SB227
NKT53	OC44	2N1193	2SB227
NKT54	OC44	2N1193	2SB227
NKT62	ASY32	2N466	2SB219
NKT63	ASY32	2N466	2SB219
NKT64	ASY32	2N466	2SB219
NKT72	AC151	2N2635	2N1384
NKT73	AC152	2N5022	2N1307
NKT74	OC44	2N2614	2N1193
NKT102	ASY32	2N466	2SB219
NKT103	ASY32	2N466	2SB219
NKT104	ASY32	2N466	2SB219
NKT105	ASY32	2N466	2SB219
NKT106	ASY32	2N466	2SB219
NKT107	ASY32	2N466	2SB219
NKT108	ASY32	2N466	2SB219
NKT109	ASY32	2N466	2SB219
NKT121	ASY32	2N466	2SB219
NKT122	ASY32	2N466	2SB219
NKT123	ASY32	2N466	2SB219
NKT124	2N1309	ASY27	
NKT125	2GT102	2N1305	NKT126
NKT126	ASY57	2GT102	NKT125
NKT127	ASY32	2N466	2SB219
NKT128	ASY32	2N466	2SB219

TYPE No.	POSSIBLE SUBSTITUTES		
NKT129	ASY32	2N466	2SB219
NKT131	OC44	2N1193	
NKT132	OC44	2N1193	
NKT133	ASY32	2N1305	
NKT135	AC152	2N5022	2N1998
NKT137	AC152	2N5022	2N1998
NKT139	ASY32	2N466	2SB219
NKT141	ASY32	2N466	2SB219
NKT142	ASY32	2N466	2SB219
NKT143	ASY32	2N466	2SB219
NKT144	ASY32	2N466	2SB219
NKT151	OC44	2N1193	
NKT152	ASY32	2N466	
NKT162	ASY32	2N466	
NKT163	ASY32	2N466	
NKT164	ASY32	2N466	2SB219
NKT202	AC128	2N2706	2SB219
NKT203	AC128	2N2706	2SB219
NKT204	AC117	AC151	2N2431
NKT205	AC117	AC151	2N2431
NKT206	AC117	AC151	2N2431
NKT207	AC117	AC151	2N2431
NKT208	AC117	AC151	2N2431
NKT210	AC128	2N5022	2N1999
NKT211	OC84	2G302	AC124K
NKT212	OC72	2G303	AC132
NKT213	OC75	2G374	AC131
NKT214	OC71	2G371	NKT215
NKT215	OC70	2G371	NKT214
NKT216	AC107	2G374	NKT217
NKT217	OC77	2G377	NKT216
NKT218	AC117	AC151	2N2431
NKT219	AC156	NKT223	AC125
NKT221	AC117	2N1189	
NKT222	AC117	2N1189	
NKT223	AC156	NKT219	AC125
NKT224	AC113	AC125	AC122r
NKT225	OC70	AC155	2N2429
NKT226	AC107		
NKT227	AC117	2N1189	
NKT228	AC117	2N1189	
NKT229	AC128	2N5022	2N2199
NKT237	ACY17	2N1189	2SN89
NKT238	ACY18	2N1189	2SB89
NKT239	ACY19	2N1189	2SB89
NKT240	ACY20	2N1189	2SB89
NKT241	ACY21	2N1189	2SB89
NKT242	ACY22	2N1189	2SB89
NKT242L	ASY48	2N1189	2SB89
NKT243	ASY48	2N1189	2SB89
NKT244	ASY48	2N1189	2SB89
NKT245	ASY48	2N1189	2SB89
NKT261	NKT271	OC81D	2G308
NKT262	NKT274	NKT270	AC154
NKT263	ASY48	2N1189	2SB89
NKT264	AC154	NKT274	2G308
NKT265	ASY48	2N1189	2SB89
NKT270	NKT274	NKT262	AC154
NKT271	OC81D	2G308	AC154
NKT272	OC81D	2G371	AC113
NKT273	AC117	AC151	2N2431
NKT274	2G374	NKT270	NKT262
NKT275	2G308	OC81D	AC154
NKT278	NKT274	NKT270	NKT262
NKT281	AC151	2N5040	2N1384

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TYPE No.	POSSIBLE SUBSTITUTES		
NKT302	ACY17	2N5151	2N1998
NKT304	AC128	2N5022	2N1999
NKT351	AC128	2N5022	2N1999
NKT401	2N511B		
NKT402	OC28	2N457A	AD148
NKT403	OC29	AD140	AUY31
NKT404	ASZ16	MP2062	2N2869
NKT405	ASZ16	MP2062	2N1906
NKT406	ASZ16	MP2061	2N2869
NKT420	ASZ16	2N1360	2N2869
NKT450	NKT452	OC26	AD149
NKT451	ASZ16	2N1359	2N1147
NKT452	OC26	AD149	AD153
NKT453	2N456A	NKT452	OC26
NKT603F	AF202	2N4916	2N3324
NKT613F	AF202	2N4916	2N3323
NKT654	AF124	2N990	2SA433
NKT655	AF124	2N990	2SA433
NKT656	AF124	2N990	2SA433
NKT657	AF124	2N990	2SA433
NKT674F	AF124	2N2273	2N2873
NKT677F	AF127	2N2635	2N2873
NKT713	AC127	AC157	AD126
NKT717	AC127	2N5135	2N1605A
NKT734	AC127	2N5135	2N1605A
NKT736	AC127	2N5135	2N1605A
NKT738	ASY74	2N211	2SA255
NKT773	AC127	2N5135	2N1605A
NKT781	AC127	2N5135	2N1605A
NKT782		2N2430	
NKT3702	BC350	BD517	2N5209
NKT3703	BC350	BD517	2N5209
NKT3704	BFY44	2N3110	
NKT3705	BFY44	2N3110	
NKT3706	BFY44	2N3110	
NKT3707	BC319	MPS6521	
NKT3708	BC347	2N3568	2SC458
NKT3709	BC347	2N3568	2SC458
NKT3710	BC347	2N3568	2SC458
NKT3711	BC319	2N930	2SC587
NKT10339	BC337	MPS6573	2N5183
NKT10419	BC168	MPS6573	2N5183
NKT10439	BC337	2N4123	2N5109
NKT10518	BC319	2N930	2SC587
NKT10519	BC168	2N4123	2N5109
NKT12329	BC338	2N2330	2N4427
NKT12429	BC338	2N2330	2N4427
NKT13329	BSX48	MPS6511	2N3932
NKT13429	BSX48	MPS6512	2N3933
NKT16229	BSY63	2N3011	2N3600
NKT20329	BC328	2N4125	2N4037
NKT20339	BC327	2N4126	2N4037
NKT35219	BSY62	2N914	2N5179
OC16	AD162	2SB83	NKT453
OC20	NKT420		
OC22	2N1907	2SB338	OD603
OC23	2N1907	2SB338	SFT213
OC24	2N1907	2SB338	AD149
OC25	2N456A	NKT453	AD149
OC26	2N456A	NKT452	T1156
OC28	2G210	NKT401	2N174
OC29	NKT402	2N457A	2SB425
OC30	NKT452	AD139	2N141
OC30A	AD148	AD152	2N2836
OC30B	AD132 111		
OC33	AC151	2N5022	NKT211
OC34	AC151	2N5022	NKT211
OC35	NKT404	2N456A	2N352

TYPE No.	POSSIBLE SUBSTITUTES		
OC36	NKT402	2N457A	2SB341
OC41	NKT126	2G301	ASY56
OC41N	AC151	2N1991	NKT281
OC42	NKT125	ASY57	2G302
OC43	NKT124	ASY58	2G306
OC43N	AC151	2N1191	NKT211
OC44	NKT142	ASY55	2G302
OC44N	AF125	2N2635	NKT674F
OC45	NKT142	ASY54	2G301
OC45N	ASY26	2N1192	NKT135
OC46	ASY26	2N1192	NKT135
OC46CP	ASY46	2SA212	2N269
OC47	ASY27	2N2927	NKT135
OC47CP	ASY47	2N269	2SA217
OC57	AC151	2SB47	AC125
OC58	AC151	2N106	2SB168
OC59	AC129	2N3323	2SB168
OC60	AC125	2N108	2SB169
OC65	NKT272	ASY50	ST301
OC66	NKT272	ACY27	ST302
OC70	NKT215	ACY34	ACY20
OC71	NKT214	ACY35	ACY21
OC72	NKT212	ACY36	AC154
OC73	AC125	2N2429	2SB415
OC74	NKT214	2G373	AC156
OC74N	AC121	AC117	AC128
OC75	NKT213	ACY30	AC156
OC75N	AC151	2N1991	NKT211
OC76	NKT212	ACY28	ACT20
OC77	NKT227	ASY51	ACY21
OC77N	ASY48	2N5151	NKT302
OC78	AC117	2N1377	2SB770
OC79	AC128	2N2431	2SB156
OC80	AC126	AC152	AC121
OC81	AC153	AC117	2SB770
OC82	AC165	2N2429	2SB415
OC83	NKT218	ACY30	ACY17
OC84	NKT211	ACY17	2SB222
OC122	BFX87	2N467	2SB222
OC123	ASY48	2N5040	NKT302
OC139	2N1302	AF180	2SC89
OC140	2N1304	2SC90	AC127
OC141	AC127	2N1091	2SC91
OC169	NKT677	AF185	AF126
OC170	NKT612	2G401S	2N1110
OC171	NKT613	2G402S	2N2495
OC171M	AF125	AF135	AF195
OC171V	AF124	AF130	AF194
OC200	2S322	BC261	2N328
OC201	2S323	2SA565	BC261
OC202	NKT0003	2S324	ASY27
OC203	2S321	BCZ12	BCY31
OC204	BCY10	BFY64	BCY12
OC205	BCY11	BCY12	BFY64
OC206	2S3220	BCY12	BFY64
OC300	AC152	AC131	AC184
OC302	AC151	2N2635	NKT613F
OC303	AC151	2N1991	NKT1211
OC304	AC151	2N1991	NKT211
OC305	AC151	2N1991	NKT229
OC306	AC151R	2N1991	NKT219
OC307	AC151	2N1190	NKT211
OC308	AC152	2N1924	NKT211
OC309	ASY48	2N398	NKT302
OC330	AC107	2N3323	2N2957
OC331	AC107	2N3323	2N2957
OC340	AC125	2N406	2SB185
OC341	AC107	2N3323	2N2957
OC342	AC107	2N3323	2N2957
OC343	AC107	2N3323	2N2957

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TYPE No.	POSSIBLE SUBSTITUTES		
OC350	AC125	2N406	2SB185
OC351	AC107	2N3323	2N2957
OC362	AC107	2N3323	2SB185
OC363	AC107	2N3323	2SB185
OC364	AC107	2N3323	2SB185
OC430	BC351	2N5086	2N1475
OC430K	BC351	2N5086	2N1475
OC440	BC351	2N5086	2N1475
OC443	BC351	2N5086	2N1475
OC443K	BC350	2N2944	2N2944A
OC445	BC350	2N2944	2N2944A
OC445K	BC350	2N2944	2N2944A
OC449	BC350	2N2944	2N2944A
OC449K	BCY32	2N2945	2SA565
OC460	BCY32	2N2945	2SA565
OC460K	BCY32	2N2945	2SA565
OC463	BCY32	2N2945	2SA565
OC463K	BCY32	2N2945	2SA565
OC465	BCY32	2N2945	2SA565
OC465K	BCY32	2N2945	2SA565
OC466	BCY32	2N2945	2SA565
OC466K	BCY32	2N2945	2SA565
OC467	BCY32	2N2945	2SA565
OC467K	BCY32	2N2945	2SA565
OC468	BC178	2N295	2SA565
OC468K	BC178	2N295	2SA565
OC469	BC350	2N2944	2N2944A
OC470	BCY34		
OC602	AC151	AC125	2SB219
OC602SP	AC128	AC131	AC152
OC603	AC151r	AC107	2SB185
OC604	AC151r	AC107	2SB185
OC604SP	AC126	2N610	2S32
OC612	AF127	AF133	2SA240
OC613	AF126	AF133	2SA433
OC614	AF185	2N1110	2SA156
OC615	AF168	2N2495	2N299
OC615M	AF125	AF125	2SA156
OC615V	AF130	AF124	2SA433
OC622	AC150	2N3323	2SB185
OC623	AC150	2N3323	2SB185
OC624	AC150	2N3323	2SB185
OC670C	BCY21	2N1475	
OC700A	BCY21	2N1475	
OC700B	BCY21	2N1475	
OC701	BSV28	2N3497	
OC702	BCY21	2N1475	
OC702A	BCY21	2N1475	
OC702B	BCY21	2N1475	
OC703	BSV28	2N3497	
OC703A	BSV28	2N3497	
OC704	BCY21	2N1475	
OC810	AC165	2N2429	2SB415
OC811	AC165	2N2429	2SB415
OC812	AC165	2N2429	2SB415
OC813	AC165	2N2429	2SB415
OC814	AC165	2N2429	2SB415
OC815	AC165	2N2429	2SB415
OC816	AC165	2N2429	2SB415
OC817	AC165	2N2429	2SB415
OC821	AC117	2N1377	2SB770
OC822	AC117	2N1577	2SB770
OC823	AC117	2N1377	2SB770
OC828	AC117	2N1377	2SB770
OC870	NKT142	ASY55	2N1303
OC871	NKT142	ASY55	2N1303
OC872	NKT142	ASY55	2N1303
OC880	ASY32	2N1305	2SB101
OC881	AF124	2N3323	2SA433
OC882	AF124	2N3323	2SA433

TYPE No.	POSSIBLE SUBSTITUTES		
OC1070	AC165	2N2429	2SB415
OC1071	AC165	2N2429	2SB415
OC1075	AC165	2N2429	2SB415
OCP71	BPX25	MRD3056	L14A502
OD20	AD163	2N1073B	NKT401
OD22	AD149	MP2061	NKT420
OD23	AD133	MP2062	NKT404
OD24	AD149	MP2061	NKT404
OD25	AD149	MP2061	NKT453
OD26	AHY21	MP2063	NKT452
OD27	AUY21	MP2061	NKT451
OD28	AUY34	MP2060	NKT401
OD29	AUY21	MP2061	NKT404
OD30	AD148	MP2061	NKT453
OD35	AUY21	MP2061	NKT401
OD36	AUY22	MP2061	NKT403
OD603	AD149	2N2836	2SB86
OD603/50	AD149	2N2836	2SB471
PET1001	MPS3693	SE1001	MPS3694
PET1002	MPS6393	MPS3694	SE1002
PET1075	2N5830		
PET1075A	2N5831		
PET2001	MPS3693	MPS3694	SE2001
PET2002	MPS3693	MPS3694	SE2002
PET3001	2N5770	SE3001	PET3001
PET3002	2N5770	SE3002	PET3001
PET3702	MPS3638A	2N3638A	2N5355
PET3703	MPS3638	2N3638	2N5354
PET3704	2N4401	2N3566	PET3706
PET3705	2N4400	SE6001	SN6001
PET3706	2N4401	2N3566	PET3704
PET3903	2N3903	EN3903	
PET3904	2N3904	EN3904	BSY34
PET3905	2N3905	EN3905	
PET3906	2N3906	EN3906	
PET4001	2N5961	SE4001	PET4002
PET4002	2N5961	SE4002	PET4001
PET4003	2N5961	SE4002	PET4001
PET4058	2N5086	2N4248	2N5087
PET4059	2N5086	2N4248	2N5087
PET4060	2N5086	2N4248	PET4061
PET4061	2N5086	2N4248	PET4060
PET4062	2N5086	2N4248	2N5087
PET4123	2N4123	EN4123	TIS99
PET4124	2N4124	EN4124	TIS98
PET4125	2N4125	EN4125	2N5447
PET4126	2N4126	EN4126	2N4021
PET6001	2N4400	SN6001	SE6001
PET6002	2N4401	SE6002	2N5449
PET8000	2N5961	SE4001	PET8001
PET8001	2N5961	2N3565	PET8003
PET8002	2N5961	2N3565	PET8001
PET8003	2N5961	SE4010	PET8002
PET8004	2N5961	SE4010	PET8002
PET8005	2N3903	2N3691	PET8006
PET8005A	2N3903	2N3691	PET8005
PET8006	2N3903	2N3691	PET8005A
PET8006A	2N3903	2N3691	PET8005
PET8007	2N3904	2N3692	EN3904
PET8007A	2N3903	2N3691	PET8005
PET8101	2N5770	2N3563	SE3001
PET8200	2N4123	EN4123	PET8201
PET8201	2N4123	EN4123	PET8200
PET8202	2N4124	EN4124	PET8203
PET8203	2N4124	EN4124	PET8202
PET8204	2N4124	EN4124	PET8202
PET8250	2N4400	SE6001	SN6001
PET8251	2N4401	SE6002	PET3704

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TYPE No.	POSSIBLE SUBSTITUTES		
PET8300	2N5086	2N4248	PET8301
PET8301	2N5086	2N4248	PET8300
PET8302	2N5087	2N4250	2N4059
PET8303	2N5771	2N4268	
PET8304	2N5086	2N4248	2N4248
PET8350	MPS3638	2N3638	2N5354
PET8351	MPS3638A	2N3638A	2N5355
PET8352	MPS3638	2N3638	2N5354
PET8353	MPS3638A	2N3638A	2N5355
PET9001	2N5772	2N4275	PET9002
PET9001A	2N5772	2N4275	PET9001
PET9002	2N5772	2N4274	PET9001A
PET9002A	2N5772	2N4274	PET9002
PET9021	2N5772	2N4275	PET9002A
PET9022	2N5772	2N4272	PET9002
PT600	D42C5	PT601	SDT3426
PT601	D42C5	PT600	SDT3426
PT612	D42C8	SDT4302	SDT3326
PT665	D44C8	2N6122	SDT345
PT896	D40D7	PT1544	PT1545
PT1544	D40D7	PT896	PT1558
PT1545	D40D7	PT896	PT1559
PT1558	D40D7	PT1545	PT1558
PT1559	D40D7	PT1558	PT1545
PT2525A	D44R1		
PT2630	D40D7		
PT2635	D42Cv	PG5044	SDT5907
PT2640	D40D4	PT2660	DT1511
PT2660	D40D4	PT2640	DT1511
PT2670	D40D7	SDT5002	PG5009
PT3502	D40D4	PT2660	PT2640
PT3503	D40D1	MT1070	PT4816
PT4690	D42C4	SDT4551	SDT4553
PT4816	D40D1	MT1070	PT3503
PT5693	D44C1	XB476	BLY63
RM3005	D40D7	SDT5002	PG5009
RM3022	D40C4		
S801	D42C1	BFS23	2N3961
S1000	D42C1	BFS23	2N3961
S1042	BC177	BC261	MPS6516
S2048	BC177	BC261	MPS6516
S2049	BC140	2N3704	
S2050	BC107	2N3710	MPS6566
S2292	BC177	BC261	MPS6516
SD1023	D40D1	PT3503	PT4816
SDJ345	D44C6	SDT6013	SDK4345
SDJ445	D45C6	SDK4445	
SDK4345	D44C6	SDJ345	SDT6013
SDK4445	D45C6	SDJ445	
SDL345	D44C8	PT665	2N6122
SDL445	D45C8	SDN445	2N6125
SDN345	D44C8	2N6122	PT665
SDN445	D45C8	2N6125	SDL445
SDO345	2N6123		
SDO445	2N6126		
SDT1860	2N4281	2N4282	2N4283
SDT1861	2N4279	2N4280	2N4051
SDT1862	2N3316	2N4048	
SDT1960	2N4051	2N4053	2N4052
SDT1961	2N4279	2N4280	2N4281
SDT1962	2N4278	2N4059	2N4060
SDT3321	D42C6	SDT3425	SDT3421
SDT3322	D43C8	SDT3776	TIP32A
SDT3325	D43C6	SDT3505	SDT3775
SDT3326	D42C8	PT612	SDT3422
SDT3421	D42C6	SDT4303	SDT3321
SDT3422	D42C8	SDT3326	PT612

TYPE No.	POSSIBLE SUBSTITUTES		
SDT3425	D42C6	STD3321	SDT3421
SDT3426	D42C5	PT600	PT601
SDT3501	D43C5	TIP32A	SDT3505
SDT3502	D43C7	PT2635	SDT3550
SDT3505	D43C6	SDT3325	SDT3775
SDT3506	D43C3	SDT3552	TIP32
SDT3550	D43C7	SDT3502	PT2635
SDT3552	D43C3	SDT3506	TIP32
SDT3553	D43C7	SDT3502	PT2635
SDT3575	D45C6	SDJ445	SDT3578
SDT3576	D45C8	SDL445	2N6125
SDT3578	D45C6	SDJ445	SDT3726
SDT3579	D45C7	STC5206	
SDT3726	D45C6	SDJ445	SDT3578
SDT3727	D45C8	SDL445	SDT3576
SDT3729	D45C6	SDJ445	SDT3726
SDT3730	D45C8	SDT3727	SDT3576
SDT3733	D45C6	SDT3729	SDJ445
SDT3775	D43C6	SDT3325	SDT3505
SDT3776	D43C8	SDT3322	TIP32A
SDT3778	D43C6	SDT3775	SDT3325
SDT4301	D42C5	TIP31A	PT600
SDT4302	D42C8	TIP31A	PT601
SDT4304	D42C6	SDT3321	SDT3421
SDT4305	D42C8	PT612	SDT3326
SDT4307	D42C6	SDT3425	SDT3421
SDT4308	D42C8	PT612	SDT4305
SDT4310	D42C6	SDT4307	SDT3425
SDT4311	D42C8	PT612	SDT4305
SDT4451	PG5001		
SDT4452	PG5002		
SDT4453	PG5003		
SDT4454	PG5004		
SDT4455	D40D5	PG5005	TIP29A
SDT4456	PG5006		
SDT4483	D40D4	PG5007	DT1511
SDT4551	D42C4	PT4690	SDT4553
SDT4553	D42C4	SDT4551	PT4690
SDT4583	D42C4	SDT4551	SDT4553
SDT4611	D42C5	TIP31A	PT600
SDT4612	D42C8	PT612	SDT3326
SDT4614	D42C5	TIP31A	PT600
SDT4615	D42C8	PT612	SDT3326
SDT5001	D40D4	PG5008	PT2660
SDT5002	D40D7	PG5009	PT2670
SDT5003	PG5010		
SDT5004	PG5011		
SDT5005	PG5012		
SDT5006	D40D4	PG5013	PT2660
SDT5007	D40D7	PG5014	PT2670
SDT5008	PG5015		
SDT5009	PG5016		
SDT5010	PG5017		
SDT5011	D40D5	PG5018	TIP29A
SDT5012	D40D8	PG5019	TIP29A
SDT5013	PG5020		
SDT5014	PG5021		
SDT5015	PG5022		
SDT5501	D40D5	PG5023	SDT5011
SDT5502	D40D8	PG5024	SDT5012
SDT5503	PG5025		
SDT5504	PG5026		
SDT5505	PG5027		
SDT5506	D40D4	PG5028	PT2660
SDT5507	D40D7	PG5029	PT2670
SDT5508	PG5030		
SDT5509	PG5031		
SDT5510	PG5032		
SDT5511	D40D5	PG5033	PG5018
SDT5512	D40D8	PG5034	PG5019

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TYPE No.	POSSIBLE SUBSTITUTES		
SDT5513	PG5035		
SDT5514	PG5036		
SDT5515	PG5037		
SDT5901	D42C6	PG5038	SDT3321
SDT5902	D42C8	PG5039	SDT3326
SDT5903	PG5040		
SDT5904	PG5041		
SDT5905	PG5042		
SDT5906	D42C5	PG5043	PT600
SDT5907	D42C7	PG5044	TIP31A
SDT5908	PG5045		
SDT5909	PG5046		
SDT5910	PG5047		
SDT5911	PG5048		
SDT5912	PG5049		
SDT5913	PG5050		
SDT5914	PG5051		
SDT5915	PG5052		
SDT6001	D44C7		
SDT6012	D44C5	SDT6031	
SDT6013	D44C6	SDJ345	SDK4345
SDT6031	D44C5	SDT6011	STC1300
SDT6101	D42C2	PT4690	SDT4551
SDT6102	D42C4	PT4690	SDT4551
SDT6103	D42C7	PT2635	PG5044
SDT6104	D42C2	PT4690	SDT4551
SDT6105	D42C4	PT4690	SDT4551
SDT6106	D42C4	PT4690	SDT4551
SDT6308	PG5053		
SDT6309	PG5054		
SDT6310	PG5055		
SDT6311	PG5056		
SDT6312	PG5057		
SDT6313	PG5058		
SDT6314	PG5059		
SDT6315	PG5060		
SDT6316	PG5061		
SDT6408	PG5062		
SDT6409	PG5063		
SDT6410	PG5064		
SDT6411	PG5065		
SDT6412	PG5066		
SDT6413	PG5067		
SDT6414	PG5068		
SDT6415	PG5069		
SDT6416	PG5070		
SDT7011	PG5071		
SDT7012	PG5072		
SDT7013	PG5073		
SDT7014	PG5074		
SDT7015	PG5075		
SDT7016	PG5076		
SDT7017	PG5077		
SDT7018	PG5078		
SDT7019	PG5079		
SDT7140	PG5080		
SDT7401	D42C6	PG5081	SDT3321
SDT7402	D42C8	PG5082	PT612
SDT7403		PG5083	
SDT7411	D42C6	PG5084	SDT3421
SDT7412	D42C8	PG5086	SDT4305
SDT7414	D42C6	PG5087	SDT3421
SDT7415	D42C8	PG5088	SDT3326
SDT7416	PG5089		
SDT7417	PG5090		

TYPE No.	POSSIBLE SUBSTITUTES		
SDT7418	PG5091		
SDT7419	PG5092		
SDT7511	D42C6	PG5087	SDT3421
SDT7512	D44C8	PT665	SDL345
SDT7514	D44C6	SDJ345	SDK4353
SDT7515	D44C8	PT665	SDL345
SDT7601	PG5093		
SDT7602	PG5094		
SDT7603	PG5095		
SDT7607	PG5096		
SDT7608	PG5097		
SDT7609	PG5098		
SDT8002	PG5099		
SDT8003	PG5100		
SDT8012	PG5101		
SDT8013	PG5102		
SDT8015	PG5104		
SDT8016	PG5105		
SDT8045	PG5106		
SDT8070	PG5107		
SDT8071	PG5108		
SDT8301	PG5109		
SDT8303	PG5111		
SDT8304	PG5112		
SDT8920	PG5113		
SDT8921	PG5114		
SDT8922	PG5115	PG5118	SDT9001
SDT9001	D42C3	PG5115	PG5118
SDT9002	D42C5	PG5116	PT600
SDT9003	D42C8	PG5117	PT612
SDT9004	D42C3	PG5118	SDT9001
SDT9005	D42C5	PG5119	PG5122
SDT9006	D42C8	PG5120	PT612
SDT9007	D42C3	PG5121	PG5118
SDT9008	D42C5	PG5122	PG5119
SDT9009	D42C8	PG5123	PT612
SDT9010	PG5124		
SDT9011	PG5125		
SDT9012	PG5126		
SE3001	BF194	2N5770	2N3015
SE3002	2N5770	BF194	BR195
SE3005	2N2857	2N918	BFX62
SE3646	2N3646	2N3009	2N3013
SE4001	BC107	2N5961	2SC458
SE4002	2N5961	TIS97	GS97
SE4010	2N5961	TIS97	2N2511
SE4020	BFR16	2N760A	2N2586
SE4021	FT107B	2N4021	2N3350
SE4022	FT107A	2N4022	SE4021
SE5001	BF173	BF237	2SC464
SE5002	BF162	2N3337	BF200
SE5003	BF162	2N3339	BF200
SE5006	BF162	MPS6546	NKT35219
SE5015	SE5050	2N3137	2N3014
SE5020	TIS84	BF173	BF237
SE5021	TIS108	BF173	BF237
SE5022	TIS108	BF173	BF237
SE5023	TIS108	BF167	BF225
SE5024	TIS108	BF167	BF225
SE5025	2N3337	2N2883	2N3287
SE5030B	PE5030B		
SE5050	2N3137	SE5015	2N3014
SE5051	2N5126		
SE5052	FPS6568		
SE5055	BF167	TIS108	SE5023
SE5056	2SC454	BF196	BF121
SE6001	BC107A	2N4400	2SC458
SE6002	2N5961	2N3565	MPS3393

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TYPE No.	POSSIBLE SUBSTITUTES		
SE6010	BSX46	2N2193	D40D4
SE6020	MPSA05	MPSA06	2N4960
SE6020A	SE6021A		
SE6021	2N4961	2N3109	2N697
SE6021A	SE6020A		
SE6022	2N4962	3C337	2N5818
SE6023	2N4963	FM3020	2N3057A
SE6062	BSX46	2N2193	D40D4
SE6063	BSX46	2N2193	D40D4
SE6562	MPSU52	2N2905	
SE6563	MPSU52	2N2905	
SE7001	D40N1	2N5182	TIS100
SE7002	D40N1	2N5182	TIS100
SE7006	D44R1	MJ2251	MJ2252
SE7015	2N3923	SE7016	
SE7016	SE7017		
SE7017	SE7016		
SE7020	D44R4	TRS3255	
SE7055	BF380	BF258	2N4927
SE7056	BF380	BF258	2N4927
SE8001	D40D1	BSY34	2N4945
SE8002	D40D4	2N4945	TIP29A
SE8010	SE8012		
SE8012	SE8010		
SE8040	SE8041	SE8042	SE8541
SE8041	SE8040	SE8042	SE8541
SE8042	SE8541	SE8540	BFY50
SE8510	BFS93	2N4149	2N5123
SE8520	BFS93	2N4149	2N5123
SE8521	BFS93	2N4149	2N5123
SE8541	SE8540	SE8541	D41D1
SE8542	D41D1	SE8541	SE8540
SFT106	OC44	2N1193	NKT142
SFT107	OC44	2N1193	NKT142
SFT108	OC44	2N1193	NKT142
SFT115	AF134	2N346	2SA116
SFT116	AF134	2N346	2SA116
SFT119	AF134	2N346	2SA116
SFT120	AF134	2N346	2SA116
SFT121	AC138	2N641	2SA115
SFT122	AC138	2N641	2SA115
SFT123	AC138	2N641	2SA115
SFT124	AC128	2N2431	2SB370A
SFT125	AC128	2N2431	2SB370A
SFT126	OC44	2N1193	NKT142
SFT127	OC44	2N1193	NKT142
SFT128	OC44	2N1193	NKT142
SFT130	AC128	2N2431	ST172
SFT131	AC128	2N2431	2SB415
SFT141	AC128	2N2706	2N2431
SFT142	AC128	2N2706	SN2431
SFT143	AC128	AC153	AC124
SFT144	AC127	2N226	2SB222
SFT145	AC127	AC153K	AC128K
SFT146	AC127	AC128	AC153K
SFT150	ACZ18	AUY20	2N1536
SFT151	AC165	2N2429	
SFT152	AC165	2N2429	
SFT153	AC165	2N2429	
SFT155	AF134	2N346	2SA433
SFT162	AF118	2N2207	2SA76
SFT163	AF121	AF200	AF212
SFT170	AF190		2SA432
SFT171	AF106	2SA230	AF102
SFT172	AF106	AF102	2SA230
SFT173	AF201	AF102	2SA239
SFT174	AF202	AF121	2SA239
SFT184	AC127	2N2430	2SD96
SFT186	D40N1	BF140	BF117
SFT187	D44R1	BF114	BF178

TYPE No.	POSSIBLE SUBSTITUTES		
SFT190	AD132	2N2065	2SB472
SFT191	AD131	AD103	2N3616
SFT192	AUY21	2N513	2N2869
SFT206	ADZ25	2N779	2SA1550
SFT207	ADZ25	2N779	2SA1550
SFT208	ASY32	ZN779	2SA1550
SFT211	ASZ15	2N1533	
SFT212	AD138	2N83A	2SB242
SFT213	AD153	2N176	2SB242
SFT214	ASZ17	AUY28	T13029
SFT221	AC131	2N1303	2SB37
SFT222	AC131	2N3502	2SB219
SFT223	AC153	AC128	AC124
SFT226	AF101	2N1305	2S40
SFT227	ASY26	2N1307	ASY30
SFT228	ASY27	2N3486A	2N1309
SFT229	ASY27	2N1309	ASY13
SFT232	AC153	AC128	2M1176
SFT233	AC124	2N176	2SB41
SFT234	ACY24	ASY48	ASY23
SFT237	AC160	ACY32	ASY27
SFT238	AD138	2N101	2SB242
SFT239	ASZ16	TI3029	AUY28
SFT240	AUY22	TI3029	ASZ18
SFT241	AC128	2SB224	2N44
SFT242	AC161	2N284	2SB89
SFT243	ACY24	2N3486A	2SB89
SFT250	AUY28	2N268	2SB340
SFT251	AC125	ASY26	AC163
SFT252	ASY26	AC125	AC163
SFT260	ASY75	MA1703	2SC91
SFT261	ASY75	MA1703	2SC91
SFT264	ADZ11	TI3030	ADZ11
SFT265	AD103	2N1146	AD133
SFT266	AD104	2N1146A	ADZ12
SFT267	AD105	ADZ11	2N1146B
SFT268	2N1100	AD132	2SB334
SFT288	ASY27	TI3030	2N1309
SFT298	ASY27	2N1308	2N1309
SFT306	AF185	2N2905	2SB459
SFT307	AF185	2N2905	2SA12
SFT308	AF185	2N2905	2SA15
SFT315	AF118	2N2207	ASZ220
SFT316	AF185	2N247	2SA215
SFT316bl	AF136	2N641	2N4034
SFT316vi	AF136	2N641	2N4034
SFT317	AF185	2N1178	2SA81
SFT319	AF185	2N373	2SA82
SFT319gn	AF136	2N641	2N4034
SFT320	AF185	2N374	2SA83
SFT321	AC126	2N464	2SB76
SFT322	AC126	2N464	2SB76
SFT323	AC126	2N464	2SB76
SFT325	AC128	AC131	AC152
SFT335	AC155	2N2429	2SB415
SFT337	AC126	2N2429	AC150
SFT351	AC126	2N63	2SB75
SFT352	AC126	2N591	2SB120
SFT353	AC126	2N2429	AC163
SFT354	AF185	2N1110	2SA156
SFT357	AF178	2N2495	2SA156
SFT357P	AF118	2N2207	AF135
SFT358	AF178	2N2495	2SA156
SFT367	AC153	2N1924	2SB370B
SFT377	AC176	AC186	AC127
SFT445	D40D7	TIP29A	D44C8

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TYPE No.	POSSIBLE SUBSTITUTES		
ST84027	D44R2	MJE344	MJE521
ST84028	D44R2	MJE344	MJE521
ST84029	D44R2	MJE344	MJE521
STC1015	BLY17	SFT441A	BLY16
STC1016	BLY17	SFT441A	BLY16
STC1024	BLY17	SFT441A	BLY16
STC1300	D44C5	SDT6011	SDT6031
STC1336	D44C5	SDT6011	STC1300
STC1400	BLY17	SFT44A	BLY16
STC1800	D442C5		
STC1850	D42C7	PT2635	PG5044
STC1860	D42C8	PT612	SDT3326
STC1862	D42C5	PT600	PT601
STC4401	D44C6	SDT6013	SDJ345
STC5202	D45C5	MJ3701	
STC5203	D45C8	SDL445	2N6125
STC5205	D45C4	STC5805	
STC5206	D45C7	SDT3579	STC5806
STC5804	D45C8	SDL444	2N6125
STC5805	D45C4	STC5205	
STC5806	D45C7	SDT3579	STC5206
STT4451	D42C5	PT600	PT601
T2096		2N3323	2N2242
T2097		2N3323	2N2242
T2696		2N3323	2N2242
T2697		2N3323	2N2242
T2796		2N3323	2N2242
T2797		2N3323	2N2242
T2896		2N3323	2N2242
TF49	ASY27	2N218	2SA12
TF65	AC126	2N2429	AC125
TF65rt	AC126	AC125	2N2431
TF65/30	AC126	OC71	2N2429
TF66	AC131	2N44	2SB220
SF66/30	AC152	AC128	2SB220
TF66/60	ASY48	ACY24	ACY14
TF70	AC128	AC176	2N1304
TF71	AC128	AC176	2N1304
TF72	AC128	AC176	2N1304
TF75	AC128	AC176	2N2431
TF77	AD162		2N2564
TF78	AD149	OD603	2SB86
TF78/30	AD152	AC128	2SB222
TF78/60	AD131	ASZ15	OD603/50
TF80/30	AD149	AD150	AD153
TF80/60	AD131	AD149	2SB86
TF80/80	AD132	AUY28	AUY31
TF90	AC133	NKT602	2N2552
TF90/30	AC149	NKT402	2N1038
TI156	AD149		
TI158	AD130	2N351A	NKT404
TI158A	AUY21	2N375	NKT401
TI159	AUY21	2N176	NKT452
TI161	AUY22	MP1531	NKT3403
TI162	AUY34	MP1532	NKT401
TI363	AF121S	2N4916	NKT613F
TI364	AF121S	2N4916	NKT613F
TI365	AF121S	2N3324	NKT603F
TI388	AF121S	2N4918	NKT613F
TI389	AF121S	2N4916	NKT613F
TI390	AF240	2N3324	2N3127
TI391	AF240	2N3324	2N3127
TI395	AF240	2N3324	2N3127
TI397	AF125	2N4916	NKT613F
TI398	AF125	2N2273	NKT674F
TI399	AF121	2N4916	NKT613F
TI400	AF240	2N3324	2N3127
TI401	AF240	2N3324	2N3127
TI402	AF240	2N3324	2N3127

TYPE No.	POSSIBLE SUBSTITUTES		
TI403	AF240	2N3324	2N3127
TI407	BFX55	2N3866	SE3006
TI408	BFX55	2N3866	SE3006
TI409	BFX55	2N3866	SE3005
TI412	BC337	2N2222	2N4437
TI413	BC337	2N222A	MPS3705
TI414	BSX75	2N3566	MPS6514
TI415	BC167A	EN4123	
TI480	BFY46	2N1711	2N2789
TI481	BFY47	2N4013	2N3736
TI482	BSX48	2N4013	2N3736
TI483	BSX48	2N4013	2N3736
TI484	BSY63		
TI485	BSY62	2N3303	2N5183
TI486	BSX46-6	2N1975	2N3108
TI487	BSX46-6	2N1974	2N3108
TI492	BFX60	2N3337	NKT16229
TI493	BFX60	2N3337	NKT16229
TI494	BFX60	2N3337	NKT16229
TI495	BFX60	2N3337	NKT16229
TI496	BFY34	2N1613	2N2221
TI539	AD149	MP1550	NKT404
TI540	AD130	MP1551	NKT403
TI1121	2N1722A	2N5239	BDY26
TI1122	2N1722A	2N5239	BDY26
TI1123	2N1724	2N4347	BDY25
TI1124	2N1724	2N4347	BDY25
TI1125	2N1723	2N3055	BDY24
TI1126	2N1723	2N3055	BDY24
TI1131	2N1722A	2N5239	BDY26
TI1132	2N1722A	2N5239	BDY26
TI1133	2N1724	2N4347	BDY25
TI1134	2N1724	2N4347	BDY25
TI1135	2N1723	2N3055	BDY24
TI1136	2N1723	2N3055	BDY24
TI1141	2N1722A	2N5239	BDY26
TI1142	2N1722a	2N5239	BDY26
TI1143	2N1724	2N4347	BDY25
TI1144	2N1724	2N4347	BDY25
TI1145	2N1723	2N3055	BDY24
TI1146	2N1723	2N3055	BDY24
TI1151	2N1722A	2N5239	BDY26
TI1152	2N1722A	2N5239	BDY26
TI1153	2N1724	2N4347	BDY25
TI1154	2N1724	2N4347	BDY25
TI1155	2N1723	2N3055	BDY24
TI1156	2N1723	2N3055	BDY24
TI3027	ASZ16	TI3028	2SB339
TI3028	ASZ15	TI3029	2SB341
TI3029	ASZ15	TI3030	AUY28
TI3030	ASZ15	TI3031	AUY28
TI3031	ASZ15	AUY28	2SB341
TIP27	BU110	2N3902	BDY26
TIP29	D44C5	BD239	2N6121
TIP29A	D44C8	BD239A	2N6122
TIP29B	BD130	2N3055	BDY80C
TIP30	D45C5	BD240	2N2124
TIP30A	D44C8	BD240A	2N2125
TIP30B	BDY82C	2N4903	2N4920
TIP31	D44C5	BD241	2N6121
TIP31A	D44C8	SDB345	2N6122
TIP31B	2N3055	BDY20	BDY80C
TIP32	D45C5	BD242	2N6124
TIP32A	D45C8	BD242A	2N6125
TIP32B	BDY82C	2N4906	2N4920
TIP33	BD245	BDY38	BD130
TIP33A	BD245A	BDX10	2N3055

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TYPE No.	POSSIBLE SUBSTITUTES		
TIP33B	2N3055	BDY20	BDY24C
TIP34	BD246	MJE2901	MJE2955
TIP34A	BD246A	BDX78	2N6134
TIP34B	2N4906	BDX78	2N6134
TIP35	BD249	BDX75	2N6103
TIP35A	BD249A	BDX75	2N6103
TIP35B	2N3055	BDY20	BDY23
TIP36	BD250		
TIP36A	BD250A		
TIP36B	2N3792	2N3789	BDX18
TIP41	2N3054	BDY38	BDY23
TIP41A	2N3055	BDY20	BDY23
TIP41B	2N3055	BDY20	BDY24
TIP42	2N4904		
TIP42A	2N4905	BDX78	2N6134
TIP42B	2N4906	BDX78	2N6134
TIP42C	2N6134	BDX78	
TIP3054	BC589	2N6123	
TIS18	BSY62	2N3426	2N5183
TIS22	BCY66	2N3694	2N929
TIS23	BCY66	2N3693	2N930
TIS24	BCY65E	2N3694	2N929A
TIS25	2N5045		
TIS26	2N5046		
TIS27	2N5047		
TIS34	BF256	MPF122	
TIS37	BC308	EN3905	2N3905
TIS38	BC308	EN3905	2N3905
TIS39	2N4874	2N4875	
TIS42	E112		
TIS44	BSY17	2N3011	NKT35219
TIS45	BSY63	2N3137	2N708
TIS46	BSY63	2N5065	2N5183
TIS47	BSY63	2N3137	2N4427
TIS48	BSY63	2N3137	2N5183
TIS49	BSY63	2N3137	2N4427
TIS50	BSX29	2N3546	2N5055
TIS51	BSY18	2N3011	2N5187
TIS52	BSY63	2N3706	2N4427
TIS53	MPS3639	2N3639	
TIS54	BSX29	2N3546	2N5055
TIS55	BSY63	2N8137	2N4427
TIS56	TIS57		
TIS57	TIS56		
TIS58	E305		
TIS60	BFX55	2N3866	2N2218A
TIS61	BSY59	2N1132	2N2906
TIS62	GS62	2N3563	2N5770
TIS63	GS63	2N5770	2N3563
TIS64	GS64	2N3563	2N5770
TIS82	D49D4	TIP29A	2N6122
TIS83	BFX60	2N3013	2N2710
TIS84	BF254	MPS6566	NKT16229
TIS85	BF255	MPS6565	NKT12329
TIS86	SE5030A	PE5030B	SE5030B
TIS87	SE5030A	PE5030B	SE5030B
TIS90	2N4946	2N4401	2N5449
TIS91	2N3644	2N4403	2N2905
TIS92	GS92	2N4946	2N4401
TIS93	GS93		
TIS94	2N3644	2N4403	2N2905
TIS95	BSX46-6	2N3108	2N912
TIS97	GS97	SE4002	2N5961
TIS98	GS98		
TIS99	MPS3394	2N4123	EN4123

TYPE No.	POSSIBLE SUBSTITUTES		
TIXM14	AF240	2N3324	2N3127
TIXM15	AF240	2N3324	BF272
TIXM16	AF240	2N3324	2N3127
TISM17	AF240	2N3324	2N3883
TIXM101	AFY34	2N3127	2N3324
TN53	D40D5	TIP29A	D44C8
TN59	D40D2	TIP29	2N6121
TN61	D40D2	TIP29	2N6121
TN63	D40D1	TIP29	2N6121
TN79	D40D1	TIP29	2N6121
TR34	AC151	2N5040	NKT219
TR43	AC152	2N5040	NKT219
TR44	AC162	2N5040	NKT219
TR45	AC162	2N1371	NKT217
TR320	AC151	2N1991	NKT211
TR321	AC151	2N1991	NKT211
TR323	AC151r	2N2927	NKT217
TR383	AC151	2N2927	NKT217
TR482	AC151	2N2927	NKT219
TR508	AC151	2N2927	NKT219
TR650	AC153	2N2927	NKT219
TR653	AC152	2N2997	NKT219
TR721	AC151	2N1991	NKT211
TR722	OC58	OC66	AC126
TR-C44	AF185	AF126	AF106
TR-C45	ASY26	2N2927	NKT217
TR-C70	AF185	AF127	AF121
TR-C70	AC126	AC125	2N2429
TR-C71	AC126	AC125	2N2429
TR-C72	AC128	AC132	2N2431
TRS140HP	D40N1	TRS140HP	TRS180HP
TRS140MP	D44R1	MJ2251	MJ2252
TRS160HP	D40N1	TRS140HP	TRS180HP
TRS160MP	D44R1	MJ2251	MJ2252
TRS180HP	D40N1	TRS140HP	TRS160HP
TRS180MP	D44R1	MJ2251	MJ2252
TRS200HP	D40N1	TRS180HP	TRS140HP
TRS200MP	D44R1	MJ2251	MJ2252
TRS225HP	D40N1	TRS200HP	TRS160HP
TRS225MP	D44R1	MJ2251	MJ2252
TRS250HP	D40N1	TRS166HP	TRS200HP
TRS250MP	D44R1	MJ2251	MJ2252
TRS275HP	D40N1	TRS250HP	TRS160HP
TRS275MP	D44R3	BD144	MJE340
TRS301HP	D40N3		
TRS301LC	D44R3		
TRS301MP	D44R3	BD144	MJE340
TRS325MP	D44R3	BD144	MJE340
TRS1204	D44R1	MJ2251	MJ2252
TRS1205	D44R1	MJ2251	MJ2252
TRS1404	D44R1	MJ2251	MJ2252
TRS1405	D44R1	MJ2251	MJ2252
TRS1604	D44R1	MJ2251	MJ2252
TRS1605	D44R1	MJ2251	MJ2252
TRS1804	D44R1	MJ2251	MJ2252
TRS1805	D44R1	MJ2251	MJ2252
TRS2004	D44R1	MJ2251	MJ2252
TRS2005	D44R1	MJ2251	MJ2252
TRS2254	D44R1	MJ2251	MJ2252
TRS2255	D44R2	MJE344	MJE521
TRS2504	D44R1	MJ2251	MJ2252
TRS2505	D44R2	MJE344	MJE521
TRS2754	D44R3	BD144	MJE340
TRS2755	D44R3	BD144	MJE340
TRS2804S	D44R3	BD144	MJE340

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TYPE No.	POSSIBLE SUBSTITUTES		
TRS2805S	D44R3	BD144	MJE340
TRS3014	D44R3	BD144	MJE340
TRS3014	D44R3	BD144	MJE340
TRS3204S	D44R3	BD144	MJE340
TRS3205S	D44R3	BD144	MJE340
TRS3254	D44R3	BD144	MJE340
TRS3255	D44R4	SE7020	
TRS3742	D44R4	TRS3255	SE7020
TRS4926	D44R2		
TRS4927	D44R2		
TZ81	BSX49	2N2222A	D40D1
TZ551	BC328	2N2907	
TZ552	BC328	2N2907	
TZ554	BC328	2N2906A	
TZ582	BC327	2N3136	2N5819
U1837E	U1897E		
U1897E	U1898E		
U1898E	U1899E		
U1899E	E304		
U2047E	E304		
UC588	E304		
UC734E	E304		
U13T1	D13K1		
U13T2	D13K2		
V409	D44C5	SDT6011	SDT6031
XA101	OC45	NKT142	2G301
XA102	NKT142	2N1193	2SB227
XA111	NKT142	2N1193	2SB227
XA112	NKT142	2N1193	2SB227
XA121	AF153	2N3323	2SA433
XA122	AF153	2N3323	2SA433
XA123	AF153	2N3323	2SA433
XA124	AF153	2N3323	2SA433
XA126	AF153	2N3323	2SA433
XA131	AF153	2N3323	2SA433
XA141	AF153	2N3323	2SA433
XA142	AF153	2N3323	2SA433
XA143	AF153	2N3323	2SA433
XA151	NKT142	2N1193	2SB227
XA152	NKT142	2N1193	2SB227
XA161	AF153	2N3323	2SA433
XA162	AF153	2N3323	2SA433
XB102	AC165	2N2429	2SB415
XB104	AC165	2N2429	2SB415
XB112	AC165	2N2429	2SB415
XB121	NKT227	2N1176	2SB415
XB401	D40D4	DT1511	PG5007
XB404	D44C4	XB408	
XB408	D44C4	XB404	
XB476	D44C1	PT5693	
XC41	AD150	AUZ11	2SB425
XC142	AD150	AUZ11	2SB425
XC155	AD132	AUY28	2SB424
XC156	AD150	AUZ11	2SB425
XC703	BSX33	2N3110	2N2218A
XC713	BSX46	2N2913	2SC708
ZT20	2S101	2N726	BFY50
ZT21	2S101	2N726	2N2297
ZT22	2S102	BFY50	2N2297
ZT23	2S103	BFY50	2N2297
ZT24	2S104	BFY50	2N2297
ZT40	2S101	2N726	BC107
ZT41	2S101	2N726	A157
ZT42	2S102	BC107	A157
ZT43	2S103	BC107	A157
ZT44	BC347	2N3568	2SC458

TYPE No.	POSSIBLE SUBSTITUTES		
ZT60	BSX46	2N2193	2SC708
ZT61	BSX46	2N2193	2SC708
ZT62	BSX46	2N2193	2SC708
ZT63	BSX46	2N2193	2SC708
ZT64	BSX46	2N2193	2SC708
ZT66	BFY56	2N1893	2SC857
ZT67	BSX46	2N2193	2SC708
ZT68	BFY56	2N1893	2SC857
ZT69	BSX46	2N2193	2SC708
ZT80	BSX33	2N3110	
ZT81	BSX33	2N3110	
ZT82	BSX33	2N3110	
ZT83	2N2221	BF168	BSX35
ZT84	2N2222	BFY34	BSW62
ZT86	BSX21	2N1893	2SC857
ZT87	BSX33	2N3110	
ZT88	BSX21	2N1893	2SC857
ZT89	BSX33	2N3110	
ZT90	D40D7	2N2192	2N2297
ZT91	2N2243	2N2219	BSX74
ZT92	BFY56	2N1893	2SC857
ZT93	BFY56	2N1893	2SC857
ZT94	D40D4	DT1511	PG5007
ZT95	D40D7	ZT1480	ZT1482
ZT110	BSX33	2N3110	
ZT111	BSX33	2N3110	
ZT112	BSX33	2N3110	
ZT113	BSX33	2N3110	
ZT114	BSX33	2N3110	
ZT117	BSX33	2N3110	
ZT118	BSX21	2N1893	2SC857
ZT119	BSX21	2N1893	2SC857
ZT131	BSX33	2N3110	
ZT132	BSX21	2N1893	2SC857
ZT152	BSY19	2N708	2N744
ZT153	BSY19	2N708	2N744
ZT180	BSX29	2N2906	2N2907
ZT181	BSX29	2N2906	2N2907
ZT182	BSX29	2N2906	2N2907
ZT183	BSX29	2N2906	2N2907
ZT184	BSX29	2N2906	2N2907
ZT187	BSX29	2N2906	2N2907
ZT189	BSX29	2N2906	2N2907
ZT190	BSX49	2N2247	2N2222
ZT191	BSX49	2N2247	2N2222
ZT192	BSX49	2N2247	2N2222
ZT193	BSX49	2N2247	2N2222
ZT202	BSX46	2N2193	2SC708
ZT202P	BSX46	2N2193	2SC708
ZT203	BSX46	2N2193	2SC708
ZT203P	BSX46	2N2193	2SC708
ZT204	BSX46	2N2193	2SC708
ZT204P	BSX46	2N2193	2SC708
ZT210	BFS95	MPSU52	2N4036
ZT211	BFS95	MPSU52	2N4036
ZT280	BSX29	2N2906	2N2907
ZT281	BSX29	2N2906	2N2907
ZT282	BSX29	2N2906	2N2907
ZT283	BSX29	2N2906	2N2907
ZT284	BSX29	2N2906	2N2907
ZT287	BSX29	2N2906	2N2907
ZT402	BC347	2N3568	2SC458
ZT402P	BSX33	2N3110	
ZT403	BC347	2N3568	2SC458
ZT403P	BSX33	2N3110	
ZT404	BC347	2N3568	2SC458
ZT404p	BSX33	2N3110	
ZT600	BSW31	2N2219A	2N2218
ZT696	BSX46	2N2193	2SC458
ZT697	BSX46	2N2193	2SC458

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TYPE No.	POSSIBLE SUBSTITUTES		
ZT706	BCY34	2N706	BCY17
ZT708	2N708	2N2413	BSY19
ZT709	2N709	2N2369A	2N3227
ZT1479	D40D4	DT1511	PG5007
ZT1480	D40D7	ZT95	ZT1482
ZT1481	D40D4	DT1511	PG5007
ZT1482	D40D7	ZT95	ZT1480
ZT1483	D44C5	SDT6011	STC1300
ZT1484	D44C8	PT665	SDL345
ZT1485	D44C5	SDT6011	STC1300
ZT1486	D44C8	PT665	SDL345
ZT1487	BFX34	2N5262	
ZT1488	DT4111	DT4112	2N1488
ZT1489	BFX34	2N5262	
ZT1490	DT4121	2N1490	BSV64
ZT1613	D40D4	DT1511	PG5007
ZT1700	D40D4	DT1511	PG5007
ZT1701	D44C4	XB404	XB408
ZT1702	BCY29	2N2906	
ZT1708	BSX48	2N2369	
ZT1711	D40D8	PG5019	SDT5012
ZT2015	2N3715	2N2016	2N5882
ZT2016	2N2016	2N5882	
ZT2102	D40D1	MT1070	PT3503
ZT2205	BFY26	2N2205	BSY63
ZT2206	BFY27	2N2206	2S131
ZT2270	D40D4	BFY15	2N2270
ZT2368	BSX48	2N2369	2SC857
ZT2369	BSX48	2N2369	2SC857
ZT2475	BSX48	2N2369	2SC857
ZT2476	BSW34	2N2219A	2N2218
ZT2477	BSW34	2N2219A	2N2218
ZT2708	BFX62	2N3563	
ZT2857	BF169	2N3013	MT1061
ZT2876	D42C7	PT2635	PG5044
ZT2938	BSX48	2N2369	2SC857
ZT3375	D42C5	PT600	PT601
ZT3420	BFX34	2N4877	
ZT3421	BFX34	2N4877	
ZT3440	D44R2	MJE344	MJE521
ZT3441	BDY72	2N3441	2N6233
ZT3442	BUY12	2N3442	MJ3010
ZTX107	BC107	AM251	BC127
ZTX108	BC108	MPS6520	BC168
ZTX109	BC109	AM253	BC319
ZTX114	BC169	2N2904	2N5210
ZTX212	BC347	BD517	2N5086
ZTX213	BC347	BD517	2N5086
ZTX213A	BC347	BD517	2N5086
ZTX213B	BC347	BD517	2N5086
ZTX214	BC349	2N3906	
ZTX237	BD517	2N5086	2SA565
ZTX238	BD517	2N5086	2SA565
ZTX239	BD517	2N5086	2SA565
ZTX300	BCW10	BC338	BC140
ZTX301	BCW12	BC327	BCW13
ZTX302	BCW14	BC337	BCW16
ZTX303	BCW16	BC337	BCW14
ZTX304	BCW18	MPSL01	BCW46A
ZTX310	BCU23	2N706	2N2369
ZTX311	BSU24	BSY95A	BC337
ZTX312	BSU25	2N706A	2N706A
ZTX313	BSU26	2N2369	2N2369
ZTX314	BSX20	BSU27	2N2369A
ZTX320	BSW97	2N918	BFX72
ZTX321	BFX53	2N918	
ZTX325	BFY90	2N2642	2SC280
ZTX326	BFY90	2N2642	2SC280
ZTX327	BC307	2N4403	EN2907
ZTX330	BCW20	2N3707	BC337

TYPE No.	POSSIBLE SUBSTITUTES		
ZTX331	BCW22	2N929	BC377
ZTX341	BSU28	MPSL01	BSX21
ZTX342	BSU29	2N5400	2N1990R
ZTX350	BC307A	2N3905	2N3904
ZTX360	BSX73	2N3725	MM3725
ZTX382	BD517	2N5086	2SA565
ZTX383	BD517	2N5086	2SA565
ZTX384	BD517	2N5086	2SA565
ZTX500	BCW11	BC328	BC160
ZTX501	BCW13	BC327	ZTX502
ZTX502	BCW15	BC327	ZTX501
ZTX503	BCW17	BC327	ZTX502
ZTX504	BCW19	MPSL51	ZTX504
ZTX530	BC253	2N6003	MPS6519
ZTX531	BC253	2N6003	MPS6519
ZTX541	BSV28	2N4390	ZTX347
ZTX542	BSV28	2N4390	ZTX347
2G101	AC163	2N506	2SB459
2G102	AC163	2N2907	2SB459
2G103	2N710	ASZ21	2N2273
2G104	2N710	2N705	ASZ21
2G106	2N705	AF124	2N990
2G108	AC163	2N2907	2SB459
2G110	2G103	ASZ21	2N2273
2G139	2SA283		
2G210	OC28	ASZ15	2N1533
2G220	2G221	ASZ16	2N1536
2G221	2G222	ASZ15	2N1533
2G222	ASZ15	2N1533	
2G223	2G225	AUY29	2N1167
2G224	2G225	AUY29/5	2N1167
2G225	2G224	2G225	2N1167
2G226	2G225	2G227	AUY29/5
2G227	2G228	AUY29/5	2N1167
2G228	2G229	AUY29/5	2N1167
2G229	2G228	AUY29/5	2N1167
2G230	2G227	AUY29/5	2N1167
2G231	2G228	AUY29/5	2N1167
2G240	AU105	AL103	2N2147
2G301	NKT142	ZN1193	2SB227
2G302	NKT142	ZN1193	2SB227
2G303	NKT142	ZN1193	2SB227
2G304	NKT142	ZN1193	2SB227
2G306	NKT142	ZN1193	2SB227
2G308	NKT142	ZN1193	2SB227
2G309	NKT142	ZN1193	2SB227
2G319	ZN1189	2N1038	2SB89
2G320	2N1189	2N1038	2SB89
2G321	2N1189	2N1038	2SB89
2G322	2N1189	2N1038	2SB89
2G323	2N1189	2N1038	2SB829
2G324	2N1189	2N1038	2SB89
2G344	NKT142	2N1193	2SB227
2G345	NKT142	2N1193	2SB227
2G371	AC117	2N1337	2SB770
2G374	AC117	2N1337	2SB770
2G376	AC150	2N506	2SB459
2G377	AC150	2N506	2SB459
2G381	AC153	AC117	2SB415
2G382	AC117	2N467	AC153
2G383	2N1189	2N1193	2SB89
2G384	2N1189	2N1193	2SB89
2G385	2N1189	2N1193	2SB89
2G386	2N1189	2N1193	2SB89
2G387	2N1189	2N1193	2SB89
2G395	OC70	2N1305	
2G396	OC70	2N1305	

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